

## APPLICATION

Studiju virziena "Management, Administration and Management of Real Property" for assessment

Study field	<i>Management, Administration and Management of Real Property</i>
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# **Self-evaluation report**

Study field "Management, Administration and Management  
of Real Property"

Riga Technical University

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## **I - Information on the Higher Education Institution/College**

### **1.1. Basic information on the higher education institution/ college and its strategic development directions, including the following information:**

Riga Technical University was founded in 1862 as Riga Polytechnic, later Riga Polytechnic Institute, and is the oldest technical university in the Baltic States. Following the restoration of the Republic of Latvia in March 1990, Riga Polytechnic Institute was renamed Riga Technical University (RTU). Over years RTU has become the leading center of higher engineering education and science in Latvia, obtained a positive assessment of international experts and has been accredited by the Supreme Education Council of the Republic of Latvia.

RTU values include academic freedom, quality, stability, integrity, sustainable development and cooperation.

Academic and scientific staff of around 1,145 people work at nine faculties of RTU (Faculty of Architecture; Faculty of Civil Engineering; Faculty of Computer Science and Information Technology; Faculty of E-Learning Technologies and Humanities; Faculty of Electronics and Telecommunications; Faculty of Power and Electrical Engineering; Faculty of Engineering Economics and Management; Faculty of Mechanical Engineering, Transport and Aeronautics; Faculty of Materials Science and Applied Chemistry) and four RTU Study and Science Centers in Cesis, Liepaja, Ventspils and Daugavpils carrying out high-quality academic activities and scientific research at a contemporary level. RTU is the second largest university in the Republic of Latvia in terms of student number and has educated and trained more than 160,000 graduates in total.

RTU carries out active study and research work, acquiring new partners worldwide, working together on project implementation, student exchange and the development of joint study programs. Active development of a student campus is underway in Kipsala, where new faculty buildings are being built, while those built in earlier years are getting a new look, modern content and design.

Many research and scientific projects are being carried out in cooperation with RTU partners, which result in both new patents and successful business activities. RTU successfully develops cooperation to strengthen its role in the development of higher engineering education in the world and in the development of Latvia.

The mission of RTU is to provide the Latvian national economy and society with internationally competitive high-quality scientific research, higher education, technology transfer and innovation.

Vision: Riga Technical University – a modern and prestigious University, internationally recognized as the leading university of science and innovation in the Baltic States – a cornerstone of the development of Latvia. In order to implement this vision, the RTU Strategy defines three university objectives: (1) high quality study process; (2) excellence in research; and (3) sustainable innovation and commercialization activities. These three objectives define specific performance indicators that will allow RTU to realize its vision by the end of 2020.

Study directions and number of study programs implemented by RTU in February 2020:

<b>Study directions</b>	<b>Number of study programs</b>
Architecture and Construction	19
Economics	3
Energy, Electrical Engineering and Electrical Technologies	13
Physics, Materials Science, Mathematics and Statistics	6
Internal Security and Civil Defense	6
Information Technology, Computer Engineering, Electronics, Telecommunications, Computer Control and Computer Science	35
Chemistry, Chemical Technology and Biotechnology	7
Mechanics and Metalworking, Thermal Energy, Thermal Engineering and Mechanical Engineering	24
Production and Processing	5
Translation	2
Management, Administration, Real Estate Management	22
Environment Protection	3
<b>Total:</b>	<b>145</b>

The offer of RTU study programs is in compliance with the forecasts with regard to the needs of the labor market in both Europe and Latvia in the coming decade. The RTU study program offer ensures education and training of the specialists in information and communication technologies (ICT), engineering, management and humanities, for which a significant shortage in the labor market is predicted.

In recent years, the number of foreign students studying to obtain a degree or qualification in Latvia has increased. In addition, the Organization for Economic Cooperation and Development (OECD) predicts that the number of people willing to acquire higher education could reach 8 million in ten years. In academic year 2019/2020, there were by 25% more foreign students studying at RTU in comparison with academic year 2018/2019. Taking into account the above mentioned, RTU has great opportunities to further increase the number of foreign students. It also provides an appropriate offer of RTU study programs in English – 16 Bachelor level study programs and 21 Master level study programs, moreover, this list is variable and is updated from year to year.

In February 2020, 12,628 students studied at RTU. 9,066 students studied at undergraduate study programs, 3,064 students studied at Master degree programs and 498 – at the Doctoral study programs.

RTU has approved the Strategy and Development Program for 2014-2020. The main objective of the RTU Strategy is to ensure implementation of the leitmotiv referred to in the National Development Plan for 2014-2020 – to achieve the “economic breakthrough” in Latvia. RTU positions itself as one of the cornerstones of Latvia's development, which ensures training of specialists necessary for the Latvian national economy, as well as the creation of new products and services, serving as the basis for sustainable growth in Latvia. The RTU Strategy includes the main objectives for the development of RTU for the period up to 2020, as well as the allocation of activities and responsibilities to be carried out for the performance of the planned tasks.

The purpose of a high-quality study process is internationally competitive, analytically and creatively thinking specialists educated and trained in the course of prestigious, internationally recognized high-quality studies, who are able ensure the development of the Latvian national economy and who have the capacity for life-long learning. The aim of excellent research is high-quality scientific studies that meet the needs of the Latvian and international economy, widely involved in international, national and sectoral research programs and integrated in the study process. Sustainable valorization aims at creation of efficient environment for technology transfer and innovation development, which promotes establishment of new technological companies and creation of new products.

Six key priorities of the University include internationalization, smart digitalization, interdisciplinarity, organizational, financial and infrastructure efficiency, which pursue three main objectives mentioned above. RTU uses horizontal priorities as a prism to review achievement of its objectives and to ensure internationally competitive high-quality scientific research, higher education, technology transfer, commercialization and innovation for the Latvian economy and society.

The aim of internationalization is to ensure internationally competitive University activities in the fields of research, innovation and education. The aim of smart digitalization is to use modern technologies to improve efficiency of University activities. Interdisciplinarity aims at promoting cooperation between different sectors and specializations as a basis for creation of new and innovative products and development of modern study curriculum. Organizational efficiency aims at promotion of effective University management, ensuring development and implementation of modern education and research processes. The aim of financial efficiency is to ensure financial autonomy of the University and to establish a motivating internal financial system that promotes University development. The purpose of infrastructure efficiency is development of a modern academic, research and innovation environment with modern buildings and technical equipment.

The implementation of the RTU Strategy is approved by a decision of the RTU Senate. Following the approval of the Strategy, RTU Rector once a year ensures definition of the annual RTU aims and tasks with clear performance indicators set at the level of each RTU unit. RTU Strategy is implemented and the results achieved are analyzed annually with regard to the defined tasks.

RTU Strategy for the period from 2021 to 2025 is being actively developed under the leadership of the Vice-Rector for Strategic Development.

RTU Strategy for 2014-2020 is published at <https://www.rtu.lv/en/university/strategy>.

**1.2. Description of the management of the higher education institution/ college, the main institutions involved in the decision-making process, their composition (percentage depending on the position, for instance, the academic staff, administrative staff members, students), and the powers of these institutions.**

The structure and administration of RTU are established in compliance with the University vision, mission and objectives and taking into account the specifics of the University management. The administrative structure is based on a decentralized decision-making process and obligations arising from the Law on the Higher Education Institutions, the Constitution of RTU, resolutions of RTU Senate, the orders issued by the Rector, as well as other RTU documents. The functions of various organizational units have been approved in their regulations approved by the Senate. Overall, RTU management can be divided into three levels: university level, administration level and faculty level.

**At the University level**, there is the Constitutional (Academic) Assembly (200 representatives – 120 academic personnel representatives (60% of the total number), 40 student representatives (20% of the total number) and 40 general staff representatives (20% of the total number). The Assembly includes all members of the RTU Senate. The conditions for the formation of the Assembly are defined in Article 30 of the RTU Constitution – see the file of Annex 01 of the list of Internal regulations), the Senate (50 Senators – 38 academic personnel representatives (75% of the total number), 10 student representatives (20% of the total number) and two general personnel representatives (5% of the total number). The conditions for the election of the representatives of the Senate are defined in the attached Article 7 of the Regulation of the Senate of RTU - see the file of Annex 02 of the list of Internal regulations), Scientific Council (composed of Deputy Deans in for research, Vice-Rector for Research, Deputy Vice-Rector for Research; the Rector, Vice-Rector for Academic Affairs, Vice- Rector for Strategic Development, Vice-Rector for Finance and the Chair of the Senate also have the rights of membership of the Council). **At the level of administration**, the operational management of the university is exercised by the Rector, whereas the Board of the Rector plays an advisory role in the adoption of such decisions, with the participation of the Rector, Chair of the Senate, Vice-Rectors, Administrative Director, Deputy Rector for International Academic Cooperation and Studies, Director of the Legal Department, Director of Infrastructure Development Department, President of the Student Parliament; the Deans Council comprising the Rector, Deans, directors of studies and research centers, Director of Riga Business School, Chair of the Senate, Vice-Rectors, Deputy Rector for International Academic Cooperation and Studies, Director of Infrastructure Development Department, President of the Student Parliament; operational management meetings uniting the Rector, Administrative Director, Deputy Vice-Rector for Research in Scientific Work, the heads of administrative departments (department directors, unit managers). At the faculty level, the highest decision-making bodies are faculty councils whose composition depends on the size of the faculty.

External partners and stakeholders are involved in the University management through the RTU Advisory Board (27 members). It provides an opportunity to receive independent opinion on important issues and possible solutions from various perspectives. Each faculty also has its own Advisory Board, which provides its own vision for improving the supply of study programs in line with sectoral needs and market trends.

Each faculty also has its own student self-government, while RTU Student Parliament coordinates faculty student self-governments. Students are represented in all RTU decision-making bodies and can therefore participate in the University strategic decision-making.

The Rector, Vice-Rector for Research, Vice-Rector for Academic Affairs, Vice-Rector for Finance and Vice-Rector for Strategic Development are the senior officials of RTU. The **Rector** implements the general administrative management of RTU and represents RTU without a specific mandate. The Rector is elected by the Constitutional Assembly for a period of five years for no more than two consecutive terms for the same person. The Rector is elected, approved in office and removed from



office pursuant to the regulatory enactments governing higher education institutions.

The operational management of RTU is exercised independently, in accordance with the delegation of the Rector, by the Vice-Rector for Research, Vice-Rector for Academic Affairs, Vice-Rector for Strategic Development and Vice-Rector for Finance. The Senate elects the Vice-Rector for Research, Vice-Rector for Academic Affairs, Vice-Rector for Strategic Development and Vice-Rector for Finance based on the recommendation of the Rector for the term of office of the Rector. The Rector may also delegate certain functions to other RTU officials and, on the basis of the Rector's proposal; other Vice-Rector positions may be created by a Senate decision.

The **Vice-Rector for Research** supervises and is responsible for Doctoral study programs and research work, including support to young researchers, research infrastructure, research funding, applied research, intellectual property protection, RTU scientific publications and scientific conferences. The **Vice-Rector for Academic Affairs** supervises and is responsible for the study process at the Bachelor, Master, first and second-level professional study programs, further education, including training programs, security and quality assurance in studies, credit points, determination of academic staff positions and workload, as well as the selection and admission of students. The **Vice-Rector for Strategic Development** is responsible for the development strategy and its successful implementation, supervises the implementation of projects important for the development of RTU, and represents the interests of RTU in interaction with public authorities, partners and the public. The **Vice-Rector for Finance** is responsible for the financial management processes of RTU and for allocating and planning financial resources to ensure the functioning of RTU and implementation of the development strategy.

The accounting, study administration, science administration and human resources administration at the university are centralized. Other administrative processes, such as procurement and project management, are centralized to the extent necessary to avoid institutional risks. At the same time, a decentralized management system has been provided at a high level at RTU, with a certain degree of autonomy for each academic unit. This means they have their own budget and self-governing structure, which allows defining and meeting the objectives of the organizational unit. This approach motivates the heads of departments to be proactive, to plan the development of the unit, and to apply for funding.

RTU governance structure information is published at  
<https://www.rtu.lv/en/university/structure-and-administration>.

### **1.3. Description of the mechanism for the implementation of the quality policy and the procedures for the assurance of the quality of higher education, as well as the stakeholders involved in the development and improvement of the quality assurance system and their role in these processes.**

RTU internal quality management system works in line with the “Excellence approach” (approved on 30 January 2017 at the meeting of the RTU Senate, Minutes No 606), as well as the “RTU Quality Policy” (approved by the Senate on 25 September 2017, Minutes No 612).

The Quality Policy is focused on the implementation of the RTU mission and the achievement of the strategic objectives. The Quality Policy lays out the framework and pathways for development and improvements of the RTU Strategy, research, study process and organization. The University Quality Policy is aligned with the European Association for Quality Assurance in Higher Education

(ENQA) standards and guidelines. The RTU Excellence Approach and quality policy are mutually integrated documents which require RTU to use the quality model of the European Foundation for Quality Management (EFQM).

The EFQM quality model assumes cooperation with student representatives, partners, professional associations, student organizations, other higher education institutions, businesses and organizations. RTU maintains an open dialogue to explore the needs of the parties involved and to respond appropriately by developing feedback to day-to-day and long-term cooperation.

By establishing links with the parties involved, the administration of RTU contributes to the development of excellence and ensures the clarity, unity, building of the work environment and diversity management of the objectives to be achieved.

RTU staff participates in quality assurance by providing suggestions and feedback to improve the RTU quality system. The heads of the RTU departments are responsible for carrying out internal quality assurance procedures and processes in their departments.

Based on the results of regular student and graduate surveys, improvements in the quality of the study process is being planned.

Cooperation with partners, suppliers and other stakeholders takes place in accordance with the RTU Strategy, establishing appropriate cooperation networks and identifying appropriate policies, activities and processes for effective cooperation aimed at ensuring the quality of the RTU and acquisition of feedback. To ensure the topicality and continuous development of existing study programs and before the introduction of new study programs the interests of all stakeholders in modern and interdisciplinary technology education are considered.

External stakeholders (public authorities, cooperation partners, representatives of the public) assess the study process and its results in State Examinations, practical placements (internships) and accreditation, and contribute in improving the content and quality of study programs.

More on this point is set out in Section 2.1.

RTU Excellence Approach is published at  
<https://www.rtu.lv/en/university/strategy/rtu-excellence-approach>.

RTU Quality Policy in Latvian is published at  
<https://www.rtu.lv/lv/universitate/dokumenti/kvalitates-politika> (English translation is in the file of Appendix 03 of the list of Internal regulations).

**1.4. Fill in the table on the compliance of the internal quality assurance system of the higher education institution/ college with the provisions of Section 5, Paragraph 21 of the Law on Institutions of Higher Education by providing a justification for the given statement. In addition, it is also possible to refer to the respective chapter of the Self-Assessment Report, where the provided information serves as evidence for the full compliance, partial compliance or non-compliance.**

1.	The higher education institution/ college has established a policy and procedures for assuring the quality of higher education.	<p>Complies</p> <p>In line with the quality model introduced by RTU, process analysis and improvement are ongoing. Performance indicators and the results of the assessment of various surveys are analyzed. The quality report data are compiled after the end of the academic year.</p> <p>Annual agreements on the target study process performance indicators are signed with the faculties; the quality is assessed by analyzing the achievement of the defined objectives relative to the plan. For more details, see the 5th row of this table.</p>
2.	A mechanism for the creation and internal approval of the study programmes of the higher education institution/ college, as well as the supervision of their performance and periodic inspection thereof has been developed.	<p>Complies</p> <p>The development of study programs takes place in accordance with the "Procedure for the application, elaboration and amendment of the study programs" (approved at the Meeting of RTU Senate on 30 November 2015, Minutes No 610).</p> <p>The departments and institutes implementing the study process, Faculty Councils, the Office of Vice-Rector for Academic Affairs, the Student Parliament and the Senate are involved in ensuring the internal study quality of RTU. These institutions carry out comprehensive assessment of the new study directions and study programs, the changes to the study directions and programs and the annual reports of the improvement of the study directions.</p> <p>At RTU, the operation of the internal quality assurance mechanism takes place at the level of the Rectorate, faculties, study directions and study programs.</p> <p>At the level of the Rectorate, the internal study quality control of RTU is carried out by the Office of Vice-Rector for Academic Affairs. The Study Department performs: (1) the maintenance and control of the Study Program Register, which involves control of the conformity of the study curriculum to the aims, tasks and learning outcomes of the study program, as well as the control of changes; (2) maintenance and control of the Study Course Register, which involves control of the conformity of study course descriptions with the learning outcomes, as well as quality control of study course descriptions; (3) periodical student polling at the University level.</p>

3.	The criteria, conditions, and procedures for the evaluation of students' results, which enable reassurance of the achievement of the intended learning outcomes, have been developed and made public.	<p>Complies</p> <p>The evaluation of learning outcomes takes place in accordance with the "Regulation on the Assessment of Learning Outcomes" (approved at the Meeting of RTU Senate on 29 May 2017, Minutes No 610) and "Regulation on Final Examinations at RTU" (approved at the Meeting of RTU Senate on 23 February 2015, Minutes No 587).</p>
4.	Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.	<p>Complies</p> <p>In order to ensure the qualification and performance quality of academic staff, professional advancement needs are regularly assessed when evaluating the results. Professional advancement training modules are developed by collecting information from: (1) academic staff surveys on professional advancement needs once in two years; (2) analysis of student polling results; (3) cooperation with student self-governments; (4) world trends and good practices of other Latvian universities in the field of professional advancement of academic staff; (5) information provided by academic staff on professional advancement topics of interest; (6) proposals from the heads of academic units for professional advancement of academic staff. The Centre for Academic Excellence (CAE), a teaching and learning center, was set up at the end of 2018; its aim is to develop a strategy for the professional advancement of academic staff, including in line with Article 16 of Cabinet Regulations of Ministers No 569. Other tasks of CAE are detailed in Section 3.5. Academic units organize regular or one-time professional advancement activities having assessed the need for professional training of academic staff. The units assess whether it is more appropriate to participate in a particular event for certain representatives of academic staff, all members of the unit or to invite also members from other units.</p>

5.	<p>The higher education institution/ college ensures the collection and analysis of the information on the study achievements of the students, employment of the graduates, satisfaction of the students with the study programme, efficiency of the work of the academic staff, the study funds available, and the disbursements thereof, as well as the key performance indicators of the higher education institution/ college.</p>	<p>Complies</p> <p>Student expectations and satisfaction with the curriculum and study process are identified in sequential and planned surveys at all stages of study. Student surveys are organized in accordance with the Regulations on “Student Polling for Assessment of the Study Process” (approved at the Meeting of RTU Senate on 27 January 2014, Minutes No 577). The aim of polling is to clarify the adaptation of first year students to the university system and the satisfaction of all students with the study process, lectures, and practical classes after each semester, the satisfaction of students with the services offered by the University, and the overall satisfaction of graduates with the study program. The results of the surveys are available to academic staff, heads of organizational units and students in a summarized form. Annually, the State Revenue Service provides information on employment of RTU graduates.</p> <p>The Total Quality Management System of RTU analyzes performance results of the study process, comparing the characteristics of the study programs, including the resulting performance indicators related to the study process in the overall EFQM quality model of RTU.</p> <p>At the beginning of September of each year, a faculty Activity Plan on study process indicators is drawn up: (1) number of students; (2) number of graduates; (3) number of students expelled from University; (4) number of foreign students in the total number of students; (5) average age of elected academic staff; (6) number of study programs implemented in English; (7) average indicator of the evaluation of faculty academic staff; (8) number of persons with a scientific degree elected to academic positions (%); (9) number of foreign guest lecturers.</p> <p>The established Faculty Study Activity Plans for the following year are drawn up by Faculty Deans, together with Deputy Deans for Academic Affairs and institute directors; they are approved by the Rector of RTU. RTU administration meets with representatives of faculties to evaluate the faculty activity plans on study process indicators, evaluating the progress in the previous academic year and defining the indicators to be achieved in the next two academic years. These indicators are used to monitor study process performance of the faculty. These indicators and other aspects influence the amount of performance-based funding allocated to the faculty and contribute to the achievement of the objectives set forward in the RTU Strategy.</p>
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6.	<p>The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their quality assurance systems.</p>	<p>Complies</p> <p>At the level of the faculty and study direction, internal quality is ensured by the Faculty Council, the Study Direction Committee and Directors of the study direction, Directors of the study programs, administration of the institutes and chairs implementing study programs.</p> <p>Within the framework of the study program, internal quality is ensured by the program director and by the academic staff implementing the program. Internal quality control at the level of the study program is carried out by the administration of the relevant institute or chair.</p> <p>In order to ensure continuous development of the study programs, RTU Study Direction Committees monitor academic activities in the relevant study direction and are responsible for the curriculum and quality of the study programs within the study direction, including the accreditation of the study direction. Inclusion of employer representatives in the Study Direction Committee is a mandatory requirement. Study Direction Committee acts in accordance with the "Regulation of the Study Direction Committee" (approved by the Resolution of RTU Senate Meeting on 03 December 2012, Minutes No 594).</p> <p>The basic tasks of the Study Direction Committee are: (1) to analyze the situation in the labor market and make suggestions for the development of new study programs as well as for the closure of the outdated study programs; (2) to carry out expert assessment of the curriculum and quality of the study programs, assess their compliance with the defined objectives and compliance with the research area represented and labor market requirements; (3) to organize and monitor the accreditation of the study direction and the licensing of study programs; (4) to analyze the assessment and recommendations made by external experts and organize elimination of identified shortcomings; (5) to carry out an analysis of the study direction self-assessment report as well as the annual reports on study direction development activities; (6) in order to achieve strategic objectives of the University, to assess the proposed changes to study programs with a view to increasing the quality of all study programs included in the study directions; (7) to analyze the results of student, graduate and employee surveys and organize elimination of identified shortcomings, as well as organize additional surveys.</p>
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## II - Description of the Study Direction (1. Management of the Study Direction)

**1.1. Economic and/or social grounds for the creation of the study direction and the relevant study programmes, the assessment of the interrelation among the study programmes, as well as the analysis of the significance (singularity) of the study programmes in comparison with other similar study programmes in Latvia and abroad.**

By decision No.132 of the Study Accreditation Committee of the Ministry of Education and Science of the Republic of Latvia of 12 June 2013, the study direction “Management, Administration and Real Estate Management” and all the programmes included therein were accredited for six years. The study direction “Management, Administration and Real Estate Management” is implemented at the Riga Technical University (RTU) in two structural units – the Faculty of **Engineering Economics and Management** (FEEM) and the **Riga Business School** (RBS). The direction has one joint study programme implemented in cooperation with the Latvian Academy of Culture (LAC).

In terms of students, this is one of the largest study directions at RTU, its includes **20 study programmes**. The study direction includes **several study programmes that are unique in Latvia** (for additional information see the description of each study programme).

The existence of the study direction “Management, Administration and Real Estate Management” at the leading Latvian technical university, RTU, has been and will be an important **precondition for the implementation of interdisciplinary projects among management and engineering fields and specialists**. The study programmes implemented within the direction focus directly on the achievement of Latvian sustainability goals, they promote full commercialisation of the inventions and innovations created at other RTU faculties, which is important for the development of innovations, manufacturing and economy of industries in Latvia. The study programmes of the direction include all study levels from first-level (college) study programmes to doctoral studies and are conditionally broken down into 5 groups.

	Entrepreneurship and Management	Civil Construction and Real Estate Management	Logistics and International Relations	Interdisciplinary Programmes	Riga Business School
Doctoral Study	Management Science and Economics				
Academic Master Study	Business Finance Entrepreneurship and Management			Industrial Engineering and Management	
Academic Bachelor Study	Entrepreneurship and Management			Creative Industries	International Business Management
Professional Master Study	Leadership and Management	Civil Construction and Real Estate Management	Organization and Management of International Economic Relations	Innovations and Entrepreneurship Total Quality Management	Master of Business Administration
Professional Bachelor Study	Entrepreneurship and Management	Real Estate Management	Organization and Management of International Economic Relations Business Logistics	Total Quality Management	
First Level Professional Higher Education	Entrepreneurship and Management	Real Estate Management			

**Figure:** *interrelation of study programmes*

The academic Master's study programme "**Industrial Engineering and Management**" is unique in Latvia. *BALTECH*, an association (consortium) of engineering universities for science and technology, was set up in Riga on 27 September 1998 for the purposes of developing cooperation between universities of the Baltic Sea Region in engineering, technology development and industrial management. It was established by: Linköping University (Sweden), Lund University (Sweden), KTH Royal Institute of Technology (Sweden), Tallinn University of Technology (Estonia), Riga Technical University (Latvia), Kaunas University of Technology (Lithuania), Vilnius Gediminas University of Technology (Lithuania). The first activity implemented by *BALTECH* was to open the international Master's study programme "Industrial Engineering and Management" in the Riga Technical University for the purposes of preparing high-quality young specialists, who would be able to successfully combine technical engineering with knowledge in industrial management. The creation of the study programme was based on the experience of Swedish universities in the implementation of study programmes of such type, this is one of the most popular Master level study programmes for engineering in Sweden and it has been historically related to the Linköping University. *BALTECH* used the experience of the Linköping University in creation and implementation of the programme to create the international study programme "Industrial Engineering and Management" in Baltic technical universities, and it was implemented in all 6 universities, initially within the scope of the *TEMPUS* project. Presently, the Master level study programme "Industrial Engineering and Management" created by *BALTECH* is still ongoing at RTU and all other universities.

The professional Master's study programme "**Innovation and Entrepreneurship**" has been created and positioned as a business management Master study programme with a focus on stimulation of innovative thinking, development of competences in creation of new products and promotion of business. The implementation of the study programme started in 2003, the curriculum and the structure of the study programme were developed in cooperation with the RTU's cooperation partner from Norway, Kongsberg campus of the *University of South-Eastern Norway*, thus transforming progressive international experience in accordance with the Latvian specifics. The study programme is unique because its learning outcomes ensure the development of general manager's competences in combination with the ability to creatively and innovatively think, create new products and services and the skill to start and do business.

Both – professional Bachelor's and Master's study programmes "**Comprehensive Quality Management**" – presently are unique interdisciplinary programmes having no equivalents in Latvia, and also the number of similar programmes in the international education space is low. France, Ireland, Sweden and the United States have similar programmes, Korea has a special module taught in engineering programmes. This fact, jointly with the rapid increase in the importance of quality management, creates favourable competitive conditions for graduates in the world, the possibility for them to be in demand in Latvia and beyond. Modern quality management is part of the management process of each organisation. The implementation of comprehensive quality management fosters arrangement of daily activities, improvement of business results, increase in customer satisfaction, which ensures success, effective and useful operations of an organisation in the long term, an environment is created in the organisation, where processes, products and services satisfy customer requirements and needs, are safe to use, create value for society and the environment. Blocks of field-specific and professional study courses of both study programmes have been created based on the international standards developed by the American Society for Quality (ASQ), which are used all over the world in education and training programmes in quality engineering and management. Both programmes have been created in close cooperation with leading experts of the Latvian Society for Quality, the Latvian Standard, the Latvian National



Accreditation Bureau and “*Bureau Veritas*”, which is the world leader in provision of testing, inspection and certification services.

The block of programmes on **real estate and civil construction** includes three programmes, considering their succession from the simplest to the most complicated, from the lowest to the highest. Aims and objectives of all study programmes are in harmony with the requirements set by international professional industry organisations for professions in this field in the world and in Europe. The professions to be mastered in the programmes are included in the structure of professions of the Construction Industry of the Latvian national economy. All the three programmes are interdisciplinary and unique in the Latvian higher education space.

The first level professional higher education study programme “Real Estate Management” focuses on profound mastering of engineering and technological knowledge in construction and energy fields related to administration of houses. The advantage of the study programme is that within a comparatively short time, in 2 – 2.5 years, students can master a profession demanded on the labour market. Aims and objectives of the study programme, the qualification to be obtained are in harmony with the requirements of the leading industry professionals, the Association of Management and Administration of Latvian Housing and the Guild of Latvian Managers, and they aim to provide students with profound knowledge in house management and skills to use them in practice. The study programmes implemented by other Latvian universities and colleges make more emphasis on legal matters of the area. Employment of graduates in this field is guaranteed by the requirements of Section 13 of the Law On Administration of Residential Houses, which provides for the professional education that managers of residential houses need and at least the fourth level of professional qualification.

The professional Bachelor’s study programme “Real Estate Management” is the only interdisciplinary study programme in Latvia in this field, which focuses on the preparation of specialists in real estate management areas with broad competences in engineering and technical matters in different companies in the construction industry and public administration institutions. There are no equivalent programmes in Latvia and in the European Union education space, therefore competitiveness of graduates of the programme is very high. Mastering of the skills and knowledge within the study programme is secured by high-level academic staff – European Union and Latvian experts – in the field of sustainable real estate management and administration, real estate development and brokerage, real estate valuation, who are involved in the creation of national and European level engineering and technical solutions on a daily basis. In addition to a professional Bachelor’s degree in real estate management, graduates of the study programme also obtain one of professional qualifications – real estate manager or real estate valuator.

The professional Master’s study programme “Civil Construction and Real Estate Management” provides students with the possibility to obtain profound theoretical and practical knowledge in civil construction and real estate management, educating existing and potential entrepreneurs and managers, paying special attention to qualitative mastering of innovative knowledge and its transfer in commerce, which would prepare specialists for professional work in local governments, state institutions, financial and insurance institutions, commercial companies, non-governmental, international and national organisations, which work in the field of civil construction and real estate. In addition to a professional Master’s degree in civil engineering and real estate management, graduates of the study programme also obtain one of professional qualifications – real estate valuator or construction estimate engineer, which are included in the structure of professions of the Construction Industry of the Latvian national economy. The study programme is implemented also in English, and the number of international students increases year on year. The Master’s study programme is the closing stage in the civil engineering and real estate management, and real estate administration areas in higher professional education. Thus, by establishing a unified

platform for professional qualification level requirements in the European Union in Master's study programmes in construction and real estate, associations emphasise uniform education quality requirements in Europe. Presently, there are talks about international accreditation of the study programme in *ARELLO (Association of Real Estate License Law Officials) IDECC (The International Distance Education Certification Center)*.

The block of programmes in **logistics and international economic relations** includes three professional study programmes: "Business Logistics" and "Organization and Management of International Economic Relations" at Bachelor level, as well as "Organization and Management of International Economic Relations" at Master level.

The professional Bachelor's study programme "Business Logistics" is the only programme in Latvia, which, in accordance with the approved profession standard "Logistics Manager", prepares highly-qualified, internationally competitive specialists meeting the requirements of the national economy in the field of logistics and transport economics. Survey results of the study programme "Business Logistics" show that employment of graduates is high, 96% of the polled graduates pursue their career in the obtained profession. Graduates mainly work in different logistics and transport services companies in Latvia and abroad. Jobs are offered during studies and internship. There are no data that there would be unemployed among graduates of the programme, statistical data evidence that graduates of the programme are in demand and will be in demand in the long term.

Study programmes "Organization and Management of International Economic Relations" at Bachelor and Master level are the only programmes in Latvia, where graduates can obtain a degree and a professional qualification of an "International Communication Manager". Highly qualified specialists in their area, including representatives of state and local government institutions, employees of international organisations and others are involved in the implementation of the programmes. Graduates of the programmes work in different local and international organisations, state and local government institutions. The programme at Bachelor and Master level is implemented in Latvian and English uniting international and Latvian students in many courses. Although the programme in English is implemented only for the third year, the number of enrolled students increases year on year.

In the nearest time, there are plans to transform both study programmes, "Business Logistics" and "Organization and Management of International Economic Relations", into double diploma programmes jointly with German universities internationally acknowledged in these areas.

The block of five **entrepreneurship and management** programmes includes academic and professional study programmes and three study levels: first level professional education, Bachelor and Master levels. The curriculum of the programmes ensures succession of knowledge of students as they move on from one level to the next one. Graduates are prepared as specialists and managers in different functional areas of the company, enterprise and organisation managers, entrepreneurs.

The block of professional study programmes currently includes three study programmes, each at own level of studies. In the reporting period, this block included five programmes, therefore, in order to prevent fragmentation of programmes, in December 2019 it was decided:

- to add the specialisation direction *Personnel Management* and the qualification to be obtained "Personnel Specialist" to the first level professional higher education study programme "Entrepreneurship and Management";
- to add the specialisation direction *Personnel Management* and the qualification to be obtained "Personnel Manager" to the professional Bachelor's study programme "Entrepreneurship and Management".

Therefore, after an evaluation of the study direction and the accreditation decision are received, to close two study programmes – the first level professional higher education programme and the professional Bachelor's study programme "Human Resources Management". (in addition, see the description of each study programme in Section III of the report).

The first level professional higher education study programme "Entrepreneurship and Management" is the only programme in Latvia offering students to select one of three specialisation directions *marketing and sales specialist or personnel specialist or accountant* as a qualification within one study programme. The advantage of the study programme is that within a comparatively short time, in 2 – 2.5 years, students can master a profession demanded on the labour market. The structure of the study programme provides that during the first year of studies students, in parallel to general education study courses, master also entrepreneurship-related study courses, getting an insight into entrepreneurship and the importance of its functional areas. During the second year of studies students select an appropriate specialisation, "Marketing and Sales" or "Personnel Management" or "Accounting". The study programme is more focused on business and enterprise operations, where students master not only special competences of the selected profession, but also get an insight into enterprise operations, business analytics and planning, develop critical thinking. Such competences are expected and highly appreciated by employers for the specialist to be able to find his or her way in the business environment. In drafting of study projects and qualification papers within the study programme, considerable emphasis is made on the evaluation and economic justification of the student's independent practical solutions. This contributes to the development of competences like the ability to find effective solutions, to argument and take on responsibility.

The professional Bachelor's study programme "Entrepreneurship and Management" is the only programme in Latvia offering students to select one of four specialisation directions within one study programme: *Enterprise Manager, Marketing Manager, Personnel Manager, Financial manager*. Programme has been running for over 20 years, and still is one of the most required within the wide range of FEEM study programs, because it continues to be relevant today's dynamic and globalized business environment. The uniqueness of the program consists of modern and up-to-date study methods, close connection with labor market - companies and organizations in Latvia and abroad, due to attraction of foreign lecturers, possibility to participate in international mobility and start-up development during the study process. The study program integrates both theoretical and practical knowledge in department (functional) management and new product development. During the studies students actively take place in business development activities of RTU Design Factory, Demola etc. The study programme has been created in such a way to allow graduates of first level (or college) study programmes to simply integrate and continue studies in the programme.

The professional Master's study programme "Leadership and Management" logically continues the block of professional studies, and currently is the only study programme at Master level in Latvia offering to obtain profound knowledge and skills in the field of leadership and management. The study programme prepares managers of organisations, whose leadership and management skills are in demand on the labour market now and will be in the future, and which are the most demanded skills in the group of social and emotional skills (soft skills). Moreover, leadership and management skills are not directly affected by rapid technological changes and their importance in the age of digitalisation becomes increasingly higher. Study courses of the programme provide students with knowledge, skills and competences, which, in accordance with the *OECD Skills Strategy* and the report of the *McKinsey Global Institute "Skill shift: Automation and the future of the workforce"*, are and will be in demand in Latvia and elsewhere in the world: entrepreneurship, leadership and managing others. In order to ensure the compliance with industry trends and

scientific achievements in the field of leadership and management, the study course “Leadership: strategies and tactics” is implemented in the study programme under the cooperation agreement concluded with the VITAE society, which is the only official representative of *FranklinCovey Education* in Latvia. Thus, it is the only Master level study programme in Latvia, which integrates licenced and copyright-protected programmes developed by *FranklinCovey Education*, the leading global training company, which covers matters of personal leadership and efficiency: creation of personality growth systems of companies, topical solutions for personality and professionalism analysis; matters about the manager and his/her personality and the process developed by *FranklinCovey* (4 disciplines of execution), which is intended for organisations to successfully implement strategies based on change in behaviour of their employees.

The block of academic study programmes also includes two study programmes. In sequence – Bachelor’s and Master’s study programmes “Entrepreneurship and Management” with a broad academic insight into the field of management and entrepreneurship. Both academic study programmes “Entrepreneurship and Management” were created, taking into account the real situation, when the development of national economy and the labour market requested educated specialists based on the requirements of market economy. Although the study programmes have been implemented for more than 20 years, they have not lost their topicality and importance, because they are constantly developing. Both programmes are important and very popular among international students. The programmes prepare specialists that are in demand in the private and public sector not only on the Latvian, but also foreign labour market. Foreign students integrate the knowledge and skills obtained during studies in their home countries, or also develop their business in Latvia, thus fostering economic growth not only of the specific region, but also of Latvia. Students are provided with an opportunity to learn diverse study subjects, thus getting a complete insight into modern technologies and their solutions in business, communication skills, team work and project management skills. The curriculum of programmes ensures the achievement of study outcomes that include the acquisition of advanced knowledge and the development of research skills and abilities in economic problems of social business and start-up business. The curriculum of the study programmes is based on the implementation of PRME and UN 17 Study Development Goals, therefore, specialists supporting sustainable, responsible and ethical business are prepared within the programmes. Students do research providing important added value to the national economy within the programme, in particular, at Master level. Baltic universities implement study programme having a similar name, however, they do not specialise in resolving economic matters of social business.

The academic Master’s study programme “**Business Finance**” is unique and important for export of Latvian higher education, because students of this programme are mostly international students. It enables students to obtain profound theoretical knowledge in management of business finances, as well as to develop research skills, educating financial managers of companies and financial investment management specialists. The study programme has international ACCA accreditation. ACCA is the leading international accounting organisation that provides widely internationally recognised qualification in the world of business. The knowledge and skills obtained by ACCA members allows them to successfully work in different areas of business, for example, in advising to companies and financial management, IT, strategic planning and general management. All students of the programme participate in research projects implementing research in all phases. The best works are presented at international conferences and published in scientific journals. Students of the study programme successfully participate in *CFA Research Challenges*. CFA is one of the most respected and acknowledged financial institutions, and its certificate is considered an advantage in investment management and corporate financial professions. Master students get the scientific and informative basis in the field of business finance from “*Bloomberg professional services*”. There are no similar academic study programmes in business finance in other Baltic universities: Latvian

universities offer professional Master's study programmes. Lithuanian universities offer different modules in financial engineering and value management.

The RTU **Riga Business School** (RBS) implements two programmes: the professional Master's study programme **"Management of Enterprises and Organisations"** and the academic Bachelor's study programme **"Management in International Enterprises"**. Since its establishment in 1991, the purpose of RBS has been to implement such study programmes in Latvia, which prepare students/graduates for a manager's career in international companies in Latvia and in the world. Therefore, both RBS programmes are implemented in English only and have been created in accordance with the structure, study methodology and assessment criteria of programmes of partner universities accredited by the *Association of Advanced Collegiate Schools of Business* (AACSB). This, in turn, enables students to recalculate credit points and obtain a double diploma in partner universities: University at Buffalo, State University of New York, and BI Norwegian Business School. Latest study aids, situational analysis materials and assessment methodology are used in the implementation of the programme, which jointly form the "image" of RBS programmes, and it is recognised and acknowledged among students and employers as the only management programmes of North American style available in Latvia. Academically, both programmes implement study courses teaching practices used by North American business/management schools/faculties. This means that the core of the programme consists of an extensive set of courses, from which students may choose study subjects to meet specific specialisation requirements. The core of the Bachelor programme is particularly "extensive", because courses in natural sciences, arts and humanities are represented in it. The learning outcomes set for each study course are tested throughout the semester to ensure gradual, but stable mastering of knowledge. This approach has secured high demand for graduates of the programme on the labour market, and the ability of graduates to adapt to the specifics of different organisations, and to demonstrate recognisable work results.

The **joint Bachelor's study programme "Creative Industries"** of LAC and RTU that combines competences of accredited study directions of both universities will foster interdisciplinary cooperation in the preparation of specialists in creative industries. The programme has been created in such a way to prepare entrepreneurs, who understand business processes and regularities in creative industries, know business models, find their way in culture and art, specifics of work of cultural organisations. Interdisciplinary knowledge of graduates of the programme allow to profoundly understand cooperation opportunities of different sectors, work more successfully in creative business, seeing more diverse development opportunities and creating innovative and highly valuable products and services. Graduates of the programme will be able to create start-ups, create new jobs, work in creative industry companies and cultural organisations, organise projects and events, fostering the development of creative industries in different sectors. The general aim of the programme "Creative Industries" is to prepare creative and motivated interdisciplinary specialists for work in creative industries – in different industry companies, in different forms of business, with profound understanding of cultural and art processes and the wish to foster growth of the Latvian national economy and its cultural and creative industries. Culture and creativity-based industries (architecture, design, cinema, performing arts, visual arts, music, craftsmanship, fashion publishing, technologies, television, radio and interactive media, advertising, computer games and interactive software, cultural heritage, cultural education, recreation, amusement and other cultural activities) are an important source of jobs and welfare in the today's world.

The doctoral study programme **"Management Science and Economics"** prepares highly qualified specialists of international level (doctors of sciences) in the field of social sciences providing theoretical and practical knowledge, which are necessary to conduct independent research work and teaching work, thus ensuring the development and renewal of the intellectual

potential necessary for economic development of the state. Baltic universities implement study programmes with a similar name, however, they do not specialise in resolution of interdisciplinary problems related to the creation and administration, management of different complex systems, the development of their economic rationale, development of new products, technologies and services.

The content of the **study programme** and its implementation are based on the applicable laws and regulations and regulatory framework of the Republic of Latvia, the principles of doctoral education recommended by EUA (European University Association), the EQUAL guidelines for doctoral studies (*EQUAL guidelines for doctoral programmes in business and management, May 2016*), following the strategic development objectives of RTU and FEEM and *United Nations Sustainable Development Goals* in higher education. The study programme is unique, because it ensures interdisciplinary research in different sectors of the national economy. 4-6 doctors of science are prepared every year. More than 5 professors and associate professors are involved in the implementation of the compulsory and restricted elective part of the study programme, moreover, all the teaching staff involved in the programme are LSC experts in fields and sub-fields of sciences related to the programme. The study programme focuses on interdisciplinary research in management science and economics fostered by the development of manufacturing and innovative activities in Latvia and worldwide. Research within the study programme takes place in the fields of sciences studying interdisciplinary problems related to the creation and administration, management of different complex systems, the development of their economic rationale, development of new products, technologies and services. Research takes place in the specialisation areas related to entrepreneurship, business development and innovation, construction, real estate, urban environment and territory development, organisational and national security, management of quality processes, products and systems, economic mathematical modelling. These research areas confirm the uniqueness of the study programme, and therefore integration of the study programme into the study programmes implemented by other universities directly is not possible.

In comparison with other similar study programmes in Latvia and abroad, programmes of the study direction **have reached the highest results when participating in national rating systems** and have been acknowledged also beyond Latvian borders. Starting from 2012, the Faculty of Engineering Economics and Management (FEEM) and the Riga Business School (RBS) of RTU have been highly evaluated as institutions in the Eduniversal Business Schools Ranking by Eduniversal ([www.eduniversal-ranking.com](http://www.eduniversal-ranking.com)), an international rating of universities and business schools. The rating includes 1000 best World business schools. Eduniversal is the rating created by the French rating agency and consulting company SMBG. The organisation specialises in matters of higher education and professional orientation, and every year it prepares a rating of 1000 best universities and business schools in 154 countries, 9 zones of the world (East Asia, Eastern Europe, Africa, Central Asia, Eurasia and Middle East, Latin America, Oceania, Western Europe and North America), as well as the rating of Master programmes on a global scale, which includes 4000 Master and MBA programmes in 30 different specialisation directions.

In November 2019, RTU FEEM and Riga Business School (RBS) was included in the **four Palmes league for the fourth time**, which means particularly high level, excellent quality and strong international impact of the academic institution in business and management education. The rating has five Palme leagues. RTU FEEM and RBS are in the high four Palmes league, which includes 200 business schools with excellent evaluation and considerable international impact. These achievements show high quality level of study programmes of the faculty and its development potential at Latvian, regional and international level.

In 2019, two professional Master's study programmes of this direction were mentioned among 100 best university and business school programmes:

- **“Comprehensive Quality Management”** moved 9 positions up to occupy the **12<sup>th</sup> place** in the field of quality management;
- **“Entrepreneurship and Management”** moved 7 positions up to occupy the **36<sup>th</sup> place** in the field of entrepreneurship.

The programme **“Civil Engineering and Real Estate Management”** was mentioned among 80 best specialised university and business school programmes and moved 2 positions up to occupy the **18<sup>th</sup> place** in the field of real estate management.

Three Master’s study programmes were mentioned among 200 best university and business school programmes in the Eastern European Region:

- professional programme **“Innovation and Entrepreneurship”** moved 7 positions up to occupy the **1<sup>th</sup> place** among 200 best programmes in the field of innovation and entrepreneurship;
- academic programme **“Business Finance”** moved 3 positions up to occupy **4<sup>th</sup> place** among 200 best programmes in the field of finance;
- professional programme **“Organization and Management of International Economic Relations”** moved 1 position up to occupy the **4<sup>th</sup> place** among 200 best programmes in the field of international management.

RBS professional Master’s study programme **“Management of Enterprises and Organisations”** is included in 3 positions in the Eastern European region:

- **“Professional MBA in Marketing”** moved 1 position up to occupy the **14<sup>th</sup> place** among 200 best programmes in the field of marketing;
- **“Professional MBA”** moved 5 positions up to occupy the **4<sup>th</sup> place** among 200 best programmes;
- **“Executive MBA”** occupied the **15<sup>th</sup> place** among 200 best programmes, keeping its previous place.

These achievements show the high level and the development potential of the study direction at Latvian, regional and international level and its readiness to extend the availability of its programmes for export, as provided for by the National Development Plan of Latvia (Paragraph 189). The Latvian 2030 development plan marks the increase in labour productivity as one of targets for Latvia and its employers. Graduates of programmes of the direction occupy executive positions in Latvian companies and state institutions, and therefore implement this setting directly.

In conditions of economic globalisation, more and more companies compete with each other to adapt and create new services and products to satisfy constantly changing consumer products. The global experience shows that about 73% of industrial innovations do not turn into successful industrial products not because they lack technological excellence, but because they do not correspond to the user’s needs. Taking into account comparatively small scientific, research and development resources of Latvia, as a small country, a creation system subordinated to user-driven innovations should be created. This thinking includes understanding of user’s needs and systematic involvement of users in the process of creation. Modern users are the biggest sources of commercially successful, innovative ideas for companies in different sectors. More and more users create, transform and improve services and products (*Sustainable Development Strategy of Latvia until 2030*: <http://www.varam.gov.lv/lat/pol/ppd/?doc=13857>).

The study direction includes study programmes preparing management specialists, who are able to perform duties related to identification of problems, formulation and implementation of goals, development of strategies, forecasting, planning, analysis of economic processes and results at

micro level and at macro level, etc. Such specialists are necessary in any industry. Although the country feels shortage of engineering specialists right now, no company can exist and compete with other companies not only in Latvia, but also in the world, if they do not have specialists with the above-mentioned competences, professionals, who have extensive knowledge in management and economics and also specialisation in a specific area. The specialists prepared in programmes of the study direction are not only vital for the development of the Latvian national economy, but also for promotion of international competitiveness, export capacity and awareness of the state. Successful business is the foundation of national economy. Enterprise development matters are particularly topical in a situation, when international competition, quality requirements for goods and services grown, professional qualification requirements increase as a result of globalisation. In the opinion of experts and graduates, all the study programmes of the direction ensure relevant level of competence for business development.

The study programmes included in the direction were created and started at different times, but always in line with applicable regulatory enactments. All the professional study programmes included in the study direction correspond to profession standards applicable to the qualification to be obtained as a result of mastering of the programme.

### **1.2. Aims of the study direction and their compliance with the scope of activities of the higher education institution/ college, the strategic development directions, as well as the needs and the development trends of the society and the national economy.**

Nowadays, the existence of qualitative business and management education in the supply of programmes of a university is an important part on the world market of higher education. In academic year 2017/2018 the Study Direction Committee revised the mission and aim of the study direction supplementing it with sub-aims. An **aim** was set within the **study direction** to provide students with sustainable multi-staged education in the field of management and entrepreneurship fostering competitive career development promoting welfare and preparing internationally acknowledged, highly qualified specialists in different fields of management, administration and sectoral governance.

**Sub-aims** of the study direction are to build, maintain and develop multi-staged, sustainable education based on research and cooperation with the industry:

- by ensuring succession of studies at all relevant (four) study levels corresponding to the field of work of the faculty;
- by fostering and implementing internationalisation activities, achieving that 10% of students and 5% of academic staff are from foreign countries;
- by ensuring representation of the faculty in the professional organisations corresponding to the direction;
- by integrating research in all study programmes and all levels of studies.

An important **objective** of the study direction is to prepare internationally acknowledged, highly qualified specialists in different fields of management, administration and management of technologies, systems and industries – business, human resources, international economic relations, logistics, systems, processes, technologies and quality, real estate management, marketing, finance and other, therefore the general **objectives** and **learning outcomes** of the study direction are formulated as follows:



- to develop analytical critical thinking in students and to promote interest in the processes taking place in society analysing the economic situation in the country and development trends in specific industries, analysing and evaluating the situation in companies, national economy in general and in different management areas;
- to master knowledge and improve professional abilities and skills in the selected study programme by demonstrating appropriate academic performance and learning outcomes in each course and integrating them into research;
- to foster mastering of research work skills by drafting study papers within different courses and graduation papers at the end of studies;
- to develop skills in identifying problems, formulating objectives and their resolution, offering practical solutions to individual problems within the scope of study courses and in the graduation paper at the end of studies;
- as a result of the study process to develop intellect of students, promote their improvement, foster the use of intellectual skills in the study process and in their practical activities.

In turn, the **goals of the study programmes within the study direction** are subordinated to the goal of the study direction, forming an integrated system, while at the same time reflecting the specificities of each study programme. *(in addition, see the description of each study programme in Section III of the report)*

The goals set for the study direction and the study programmes therein stem from the strategic goals of RTU: high-quality study process, excellence in research and sustainable innovation. The RTU Strategy is based on the three main objectives of the University and is related to the five major priorities of the University: internationalization, interdisciplinarity, organizational, financial and infrastructure efficiency. These five horizontal priorities are used by RTU as a prism to monitor achievement of its objectives and to provide the Latvian national economy and society with internationally competitive high-quality scientific research, tertiary education, technology transfer, commercialization and innovation. The strategic direction of RTU development is to be an international and the leading Baltic university of technology. Accordingly, the goals of the study direction are part of the common university development strategy and are consistent with common social and economic trends. Implementation of the study programmes develops student understanding of economic and social issues in sustainable economic development, as well as their skills in identifying and addressing problems.

The development strategy of the Riga Technical University (RTU) is implemented as part of the process of building the future of European engineering education. On 9 October 2015, RTU became a member of the Conference of European Schools for Advanced Engineering Education and Research or CESAER, and the university is now cooperating in engineering education, research and innovation policy making, which is on the agenda of the European Commission (EC). RTU is currently participating in three CESAER expert task forces: Human Resources, Innovation and Scientific Engineering Education – TFSEE. The last one has been created for CESAER experts to proactively influence European policies in tertiary education in general, including by expressing their opinions and ensuring representation of interests of science and technology universities in the European Higher Education Area and in the initiative “New Skills Agenda for Europe”, and in particular in STEAAM (Science, Technology, Engineering, Architecture, Arts and Mathematics) education. Expert task forces work in order to flexibly and quickly respond to the demand of European institutions and to offer support and solutions in different decision-making.

Tertiary education policies in Europe are created by collective decisions of countries and by international organisations. The European University Association (EUA) is one of the most important organisations shaping and influencing the European Higher Education Area. In 2017, RTU received the EUA evaluation for the second time and was awarded the right to use the logo of the

Institutional Evaluation Programme (IEP) of the European University Association for 5 years.

Regardless of international organisations or intergovernmental decisions laying down European single tertiary education policy directions, these policies are in any way implemented by universities themselves. Therefore, study programmes of the direction also include transfer of qualitative and innovative study curriculum or results and clearly formulated learning outcomes to be achieved in each study programme. This process includes:

- determination and analysis of the requirements of target groups of the study direction;
- selection of solutions, curriculum analysis for them to correspond to interests of target and involved groups, and the analysis of their transfer opportunities;
- integration or recognition of results at European, national, regional, local and/or sectoral level, for example, certificates of employers or international partner universities for graduates.

The RTU Strategy defines the strategic goal of the Faculty of Engineering Economics and Management (FEEM), which is to ensure excellence of the study process, excellence of research activity, excellence and visibility of the organization, as well as infrastructure excellence and development of the academic environment in the fields of management, economics and security.

The **FEEM mission** is to prepare internationally acknowledged, highly-qualified specialists in economics and business, to promote growth opportunities of scientists and teaching staff by ensuring competitive multi-staged education providing career and welfare using latest technologies and innovations. The **FEEM vision** is to become a modern and prestigious, internationally acknowledge faculty, an excellent engineering economics and business training and research centre in Latvia and in the Baltic region, which promotes the development of national economy and the entire region by preparing highly qualified specialists.

One of the most important indicators proving compliance of the study direction with development needs and development trends of society and the national economy, as well as the needs of the prepared specialists in the labour market is employment of graduates. One of the ways for the management of programmes of the study direction to obtain information about the quality of the study programme and its compliance with labour market requirements are close contacts with employers – companies, institutions and organisations, as well as graduates. In order to ensure constant bilateral dialogue, events and conferences, where all the stakeholders (employers, academic staff of the university, graduates and students) meet, are organised on a regular basis. In October of academic year 2017/2018, a **FEEM Convent of Councillors** was created at RTU FEEM and approved at the FEEM Council meeting. The purpose of functioning of the Convent is to promote the development of RTU and the faculty in accordance with the RTU strategy and national economy needs (see also Section 5 of the self-assessment report).

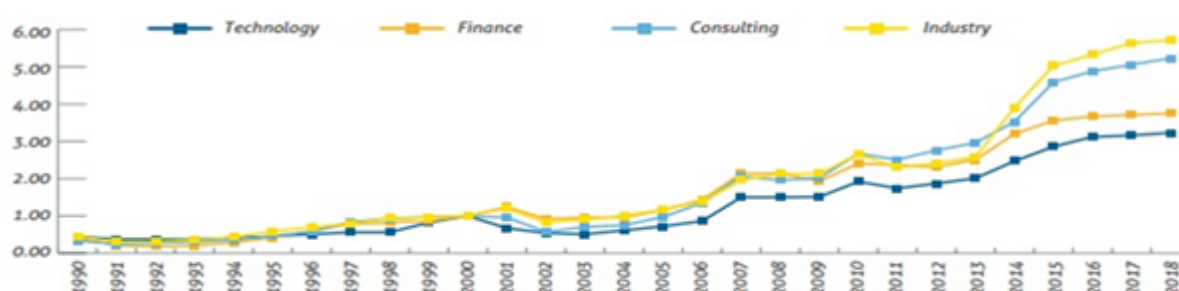
In the survey conducted by the **Employer's Confederation (LDDK)**, RTU was recognised as an education institution that is most recommended and acknowledged by employers and it is on the honourable **1<sup>st</sup> place** in this rating every year. This is an evaluation of Latvian higher education institutions created by the Latvian portal Prakse.lv and LDDK. It evaluated which professions were necessary on the labour market at that moment and which higher education institution was able to prepare the best specialists for competitive companies. Such an evaluation has been prepared for the purposes of helping graduates of basic schools and secondary schools to make a correct choice of their profession and higher education institution. **It was recognised that RTU was an example of ensuring a real link between studies and the real labour market.** This survey of most demanded professions lists not only engineering professions, but also those related to the study direction “Management, Administration and Real Estate Management”.

In order to evaluate compliance of programmes of the study direction with labour market requirements and employment opportunities of graduates of the programme, a survey of employers or focus group interviews was conducted in all programmes. Respondents of the survey are CEOs of internship companies, who often also are graduates of programmes and cooperation partners. They are urged to objectively evaluate the specific study programme, knowledge and skills of graduates of the programme and their compliance with labour market requirements, as well as to forecast employment opportunities of graduates. The results of these surveys can be obtained from heads of study programmes (*for additional information see the description of each study programme*).

The comparison of the skills obtained in study programmes of the direction with the informative report on medium and long-term labour market forecasts and strategically demanded industries in Latvia prepared by the Ministry of Economics of the Republic of Latvia evidence that the content of the study direction corresponds to the demand (Source: [https://www.em.gov.lv/files/tautsaimniecibas\\_attistiba/dsp/DT\\_zin\\_2018\\_eng.pdf](https://www.em.gov.lv/files/tautsaimniecibas_attistiba/dsp/DT_zin_2018_eng.pdf)) In the forecast scenario, manufacturing will still have more rapid growth rates than the national economy on average in the medium and long term. Growth will be related to the use of latest technological processes, digitalisation, optimisation of processes, etc. More rapid development is expected in high and medium-high technology industries – chemistry, pharmacy, electronic, etc. Comparatively rapid growth rates are expected also in the largest manufacturing sector – wood processing. The development of more domestically oriented industries (such as food industry, publishing) will mainly be affected by the dynamics in domestic demand. One of the most rapid growths in main sectors of the national economy in the target scenario in the medium and long term is expected in information and communication. Therefore, the interdisciplinary programmes implemented by the direction in the fields of industrial management, innovation, quality management, logistics and real estate management become increasingly more in demand and of immediate interest in the labour market.

If we look back at the last years, we see that the demand for the business management (MBA) degree has been sufficiently high. The demand for MBA in the technology, financial, consulting and manufacturing sectors remained at the same level, and this indicator has even increased in individual sectors. In comparison with the previous year, the demand for MBA has grown, however the demand for new employees in the financial industry has been lower, but a stable recruitment level was undoubtedly observed in this sector in 2016, compared to the rapid increase in the last two years. In the next years, companies of manufacturing and consulting industries expect an increased demand for MBA, the indicator is expected to remain unchanged in the finance and technology sector. It was hard to forecast changes in these indicator even before the changes in the political environment in the largest part of the Western world. The figure “Demand for graduates of business management programmes” shows that the long-term selection index has changed and has grown in the last decade. After the surprising increase from 2013 to 2014, in particular in the manufacturing and consulting sector, 2015 was another year of strong growth. After such an increase and therefore growing instability on global markets a stable demand for specialised business education programmes is expected further.

Index of long-term hiring trends



**Figure:** demand for graduates of business management programmes

**Source:** [https://www.topmba.com/system/files/pdf-uploads/js\\_2016\\_17\\_final.pdf](https://www.topmba.com/system/files/pdf-uploads/js_2016_17_final.pdf)

The surveys of employers conducted within study programmes of different levels with participation of experts from ministries, state institutions, banks, research and commercial units evidence of the need for qualitatively prepared specialists in all subsectors of the economy who will perform practical and analytical assignments, in particular in the fields affecting start-up business and establishment, management of small enterprises, accounting, building of finances and a flexible operations strategy.

In accordance with the results of the research of the World Economic Forum “*The Future of Jobs Report 2018*” (World Economic Forum, 2018) the demand for marketing and sales specialists, as well as personnel specialists in the world and specifically in Eastern Europe will remain high in the near future. The demand for accountants will change in favour of those, who are able to do financial analytics and provide recommendations for business support and development.

Several studies (KEA, 2006; *Innovation Union Competitiveness Report, 2011*; *Report on a Coherent EU Policy for Cultural and Creative Industries, 2016*) highly evaluate the development potential of cultural and creative industries, as well as based on quantitative indicators it is emphasised that creative industries are a driver of economics and the most rapidly growing sector of national economy. 11.2% of private companies and 7.5% of all employed persons work in creative industries in Europe (*Report on a Coherent EU Policy for Cultural and Creative Industries, 2016*). Over 10,000 companies employing 70,000 employees work in creative and related industries in Latvia. Creative industries also rapidly develop in Latvia. Overall, in the Latvian economy, similarly to other EU countries, creative industries and related industries account for approximately 8%–10% of total number companies and employed, net turnover, created added value and export volumes. (*Functioning of Latvian creative industries, 2013*).

Doctoral studies create the necessary intellectual potential for economic development of the state. Pursuant to the “Sustainable Development Strategy of Latvia until 2030”, long-term investments in human capital are required to promote the renewal of human resources, therefore the demand for specialists with a doctoral degree in social sciences and on the labour market in Latvia is very high.

**1.3. SWOT analysis of the study direction with regard to the set aims by providing explanations on how the higher education institution/ college expects to eliminate/improve weaknesses, prevent threats, and avail themselves of the given opportunities, etc. The assessment of the plan for the development of the study direction for the next six**

**years and the procedure of the elaboration thereof. In case there is no development plan elaborated or the aims/ objectives are set for a shorter period of time, information on the elaboration of the plan for the development of the study direction for the next assessment period shall be provided.**

In order to ensure the high quality of the study direction, a report on enhancing the academic quality is designed annually and is further evaluated by an expert appointed by the Vice-Rector for Academic Affairs. The report is approved by the RTU Senate. An integral part of the report is SWOT analysis, which allows to focus on what has been achieved and to highlight the challenges to be solved. It is an essential tool for achieving the goals formulated for the study direction.

With involvement of directors of all programmes of the study direction, representatives of employers and representatives of the FEEM Student Self-government, the SWOT analysis and the development (see the table) plan of the study direction was considerably revised in spring 2018 based on the proposed aims, sub-aims and objectives of the study direction. By promoting planning and improvement of the study direction, the SWOT analysis was discussed with members of the FEEM Convent of Councillors and the development plan was approved at the Convent meeting.

Study direction SWOT analysis:

### **Strengths**

- Interdisciplinary and unique, modern study programmes at all levels of higher education (first-level professional higher education, Bachelor's studies, Master's studies, doctoral studies);
- Highly-developed infrastructure, modern, fully equipped auditoriums, excellent digital infrastructure (ORTUS, Bloomberg, Use Science, databases of publications, etc.) and the use of ORTUS environment in the study process;
- Versatile, professional and qualified staff with both academic and practical experience in the field of studies, including a variety of didactic approaches, who regularly improve their competences and ensure that the study process is provided also in English;
- Active cooperation with Latvian employers' unions and associations, businessmen and state institutions, creating a reputation for programmes of the study direction and a high appreciation by employers, which provides good career opportunities for graduates. RTU has been evaluated as No.1 in Latvia by employers for several years;
- Democratic relations between administration, academic staff and students, students participate in decision-making and the development and improvement of the study process, there is academic fairness policy. FEEM has the most active Student Self-government;
- Integrated research and study process, extensive opportunities to participate in international scientific conferences and seminars (for both students and staff). Extensive, modern and accessible RTU library (works 7x24), newest textbooks and world renowned study case materials are used in the study process;
- Governance of the direction ensures continuous development and quality control of the study process. The quality system at RTU has been created as an RTU excellence approach, which ensures qualitative studies and research, as well as continuous improvement;
- Extensive international partnership and cooperation with foreign universities, including universities accredited by EFMD;
- Students and graduates have the level of theoretical knowledge required for the industry, the study process balances theoretical and practical classes, provision of internship for students. The implementation of programmes of the direction in English allows to attract more foreign

students;

- Strong RTU Alumni Association, which builds reputation and sustainable cooperation with former students.

## **Weaknesses**

- Different levels of initial preparedness of students and motivation of students. Part of the students have insufficient motivation for studies;
- A fundamentally different level of initial preparedness of foreign students, a different understanding of the cultural and educational process, as well as motivation;
- Academic staff is loaded with work, thus insufficient capacity hampers strengthening of individual work with a student or hampers the implementation of the student-centred approach;
- The need to align different levels of preparedness of students puts additional load on academic staff and hampers the possibility to develop research skills and professional competences of students;
- The number of state-funded study places in the study direction that does not match the demand of those wishing to study, and therefore lack of funding, which hampers the flexible and effective involvement of foreign teaching staff and industry professionals in the study process and research;
- Insufficient use of digital and video materials and possibilities for replacing face-to-face lectures;
- The potential for creation of double diploma and new study programmes is not sufficiently exploited. Insufficiently developed international brand of RTU to successfully compete with universities of the same level in other countries in attraction of foreign students.

## **Opportunities**

- Interest of active and successful entrepreneurs and professionals in sharing their experience and knowledge, enabling them to engage in the implementation of the study direction and creating opportunities for extension of cooperation (e.g. visiting lectures, tours, applied research, etc.);
- Opportunities for studies abroad within the framework of exchange programmes, participation in academic staff mobility programmes, gaining of international experience in projects, etc.;
- Applied research, cooperation with industry companies and organisations, as well as the development of graduation papers in line with the interests of specific companies and the specificities of the sector;
- Possibility to involve engineering students from RTU and other universities in mastering business and management skills and competences at Master level in full-time and part-time studies;
- Extension of cooperation with foreign universities and international institutions and organisations (BMDA, EFMD, AACSB, CEEMAN) within the study direction;
- Improvement of existing study programmes and the development of new study programmes, assessing changes in sectors related to the study direction and in line with labour market trends;
- Possibility to offer qualification improvement courses to companies in line with the specifics of the sector;
- Digital infrastructure and its use allow to teach both full-time and part-time students, including the opportunities provided by videoconferencing in auditoriums, can help to improve the range of services and attract students who cannot attend lectures on a regular basis.

## Threats

- Lack of a sustainable strategy in Latvian higher education policy;
- Insufficient public funding and distribution of financial resources between study directions, reduction in the number of state-funded study places and possible liquidation in the specific study direction;
- The heavy, administratively complex and bureaucratised system of acquiring EU project funding (as well as other external resources) can pose significant challenges for participation in these projects in the future;
- By combining full-time studies with work, students cannot be fully involved in the study process, this causes problems in achieving the planned learning outcomes, reducing their academic performance, as well as the threat of not completing their studies;
- Insufficient levels of individual scholarships to make full use of mobility programmes can reduce student mobility, since the costs of living in many European countries are very high;
- A wide range of study programmes in Latvia in this direction and, at the same time, the growing supply of foreign universities, as well as the emigration of young people and the demographic situation lead to a reduction in the number of potential applicants;
- In view of the potential of Latvian higher education market, solvency of the population and the number of universities and the supply of study programmes, it is very difficult for universities to align the fees with solvency of students, which may lead to a decrease in quality;
- Rapidly evolving global technologies create potential for violations of academic integrity and their failure to restrict them may lead to a decline in the quality and prestige of studies;
- The expanded availability of MOOCs (Massive Open Online Courses) and their recognition in workplaces contribute to changing student choice and switching from face-to-face studies to distance or virtual studies, which can have a significant impact on future investments in higher education infrastructure.

Development plans, as well as measures for the elimination of weaknesses and threats are presented in the Appendix "Development Plan of the Study Direction for 2020-2025".

### **1.4. The structure of the management of the study direction and the relevant study programmes, and the analysis and assessment of the efficiency thereof, including the assessment of the role of the director of the study direction and the heads of the study programmes, their responsibilities, and the cooperation with other heads of the study programmes, as well as the assessment of the support by the administrative and technical staff of the higher education institution/ college provided within the study direction.**

The management of the study direction and the corresponding study programmes is generally provided by the Council of the FEEM (Faculty of Engineering Economics and Management), the Council of the RBS, the Study Direction Committee and the director of the study direction, the directors of the study programs, the administration of the institutes or departments, implementing the study programme, and the Student Self-government of FEEM.

The study direction "Management, Administration and Real Estate Management" is implemented at the Riga Technical University in two organisational units – the Faculty of Engineering Economics and Management (FEEM) and the Riga Business School (RBS). A joint programme is implemented in cooperation with the Latvian Academy of Culture.

The study direction has **20 study programmes** in total (22 programmes before the accreditation of the direction or end of 2020) and they are led by **13 directors of programmes**. The Study Direction Committee includes directors of all programmes, representatives of employers and a representative of students (see appendix "Study Direction Committee members").

**2** of the programmes included in the direction **are implemented by RBS**, which has a status of an institute at RTU. **18 programmes are implemented at FEEM**, therefore the study direction is implemented in cooperation between all the FEEM institutes and divisions:

- Institute of Civil Engineering and Real Estate Economics (ICEREE);
- Institute of Occupational Safety and Civil Defence (IOSCD);
- Institute of Production Quality (IPQ);
- Institute of International Business and Customs (IIBC);
- Institute of Business Engineering and Management (IBEM) and IBEM Division of Continuing Education;
- FEEM Unit of International Programs and *BALTECH* Study Centre.

Each of the institutes implements one or more study programmes included in the study direction or also the academic staff representing the institute is involved in their implementation. Institutes and the departments included into them ensure teaching and methodological work: create and update study subject programmes, ensure appropriate teaching of study subjects, supervision and defence of graduation papers and perform other activities related to teaching, methodological and scientific work.

Other organisational units of RTU – faculties and institutes – for example, the Institute of Humanities and the Institute of Applied Linguistics of the Faculty of E-Learning Technologies and Humanities, the Faculty of Civil Engineering, the Faculty of Computer Science and Information Technology, the Faculty of Material Science and Applied Chemistry, the Faculty of Mechanical Engineering, Transport and Aeronautics of RTU, the RTU Design Factory and laboratories, are involved in the implementation of FEEM study programmes of the study direction.

Furthermore, courses of mathematics at RBS are taught by teachers of the RTU Department of Engineering Mathematics, but RBS generally ensures academic and organisational work for its programmes, as well as attraction of students in Latvia and abroad, in cooperation with partner universities.

In order to ensure the quality of the study programmes included in the study direction and provide necessary support to teaching staff and students, both organisational units implementing the direction (FEEM and RBS) have professional teams, as well as programme self-assessment working groups (see the appendix Programmes self-assessment working groups).

RBS teams include directors of both implemented programmes, each programme has its programme coordinator, staff involved in administration of programmes (fourteen persons), assistant teachers (in study subjects, where it is necessary), in addition, an adviser is assigned to each student, who provides consultations to students throughout the programme. Students get help in search and finding of internship places, it is provided by the RBS Alumni Association.

The FEEM team consists of directors of 11 programmes and the administrative and technical staff involved in the implementation of each programme – **18 employees in total**. This staff performs study support processes – study work organisation, ensuring of public and international relations, record-keeping on students, technical support in study programmes of the direction and other works related to the implementation of the study programme. A study office manager, an office administrator, a public relations specialist, an administrator of computer networks and study process planning and coordination specialists can be mentioned as the most important



administrative and technical staff positions.

**6 study office managers** are currently involved in the implementation of the study direction at FEEM, whose main duties and competence include supervision of administrative (office) work and management in general. Their duties include also business correspondence, organisation of circulation of information, incl. with cooperation organisations in Latvia and abroad, coordination of the flow of phone calls, e-mails and correspondence, planning of the work schedule for the head, organisations of meetings and appointments. They can also do simple financial accounting in the organisational unit, analysis, evaluation and control of documents, as well as preparation of different reports related to principal activity as instructed by the head and resolution of problems or non-standard situations.

**4 study office administrators**, whose competence includes the implementation of administrative (office) work, service of visitors and students and resolution of standard situations or referring to responsible specialists, incl. sending of complaints or applications for review to the respective structural unit. Their duties include organisation and maintenance of record-keeping of an organisational unit, support in the process of enrolment of students, preparation of schedules of classes, informing of students on changes in the study process, as well as serving of visitors and students and resolution of problems. They may provide consultations and information on matters related to the study process, study opportunities and continuing education. These specialists summarise necessary data, analyse them, as well as prepare necessary reports, they may also perform other duties at the assignment of the head of the organisational unit.

The duties of a FEEM **public relations specialist** are performed by one person, whose main duties and competence include the creation of a positive image of FEEM, which includes translation of different materials and documents, as well as creation of informative materials by summarising, systematising and updating information on organisational units, improvement and updating of the website. The development and implementation of the marketing plan is one of the main duties. The public relations specialist should constantly maintain contacts with FEEM's international cooperation partners, as well as work on the attraction of new partners, as well as organisation of visits of cooperation partners, settlement of formalities, welcoming of delegations, etc.

The **administrator of computer systems and computer networks**, whose main duties and competence include maintenance, installation, configuration of computer equipment and office equipment, performance of system diagnostics tests and resolution of complex problems in the systems, or integration of systems and resolution of compatibility-related problems should be solved. This specialist is also responsible for administration of operating systems and application (software) packages with a large number of users, including regular system tests. Administrators of computer networks and laboratory employees should plan and coordinate constant functioning of the system, analyse necessary improvements, evaluate possible solutions and make recommendations to the management.

The faculty employs **2 study process planning and coordination specialists**, who are responsible for planning of classes and premises for the study programmes and coordination and supervision of changes. Planning of individual study programmes also takes place in organisational units, however, the entire process is supervised by the planner of faculty classes to ensure effective use of premises and optimal work of academic staff.

**4 student service specialists at the FEEM Information and Service Centre**, who ensure that necessary information is available to students, employees and other visitors and circulation of this information. As a priority, this centre provides jobs to FEEM students.

The programmes implemented within the study direction fully correspond to the main goals of

higher education – development of personality, democratic society and science and satisfaction of labour market requirements. In order to ensure this compliance, create and implement an effective strategy for management and development of the direction, it is based on the following principles:

- cooperation – all parties get involved in resolution of direction development matters: academic staff, students, employers, local governments and state institutions, public organisations, etc.;
- consistency – ensuring access to cooperation and partnership in resolving direction development matters within RTU, in cooperation with other institutions;
- succession – continuity of studies and personality development goals in the implementation, ensuring logical succession in study programmes and lifelong learning;
- sustainability – justification of educational decisions and balanced development;
- availability – all students have equal opportunities to obtain respective education within the study direction;
- coordination – an integrated approach to planning and implementation of changes is implemented ensuring equal management and coordination of changes among different organisational units and levels and types of study programmes.

Internal quality control at the faculty and at the level of the study direction is ensured by the Vice Dean for Academic Affairs. The quality of the study programme is ensured by the Head of the study programme and the academic staff involved in the implementation of the program, whereas the whole process is controlled by the administration of the responsible institute or department. Once in an academic year the abstracts and curriculum of the study program, the methodological materials, as well as recent study literature and methodological guidelines for study papers (reports, study papers, internship reports and graduation papers) are reviewed. The academic staff and the administration of the study programme participate in various experience exchange activities, cooperating with the higher education establishments in other countries, participating in the meetings with representatives of relevant institutions and entrepreneurs, as well as discuss the current developments in the field, analysing the results of the students' research papers and projects.

The responsibilities and duties of the Head of the study program are provided in the job description. The most important of them include: management of study programme development, improvement of the curriculum in compliance with the requirements of the scientific fields or the sectors of the national economy, implementation of quality assurance, supervision of study plan development, promotion of internationalization, cooperation with RTU Study Department providing the input of data in the Information system, as well as the cooperation with other departments of RTU that are involved in the implementation of the study programme. The administration of the Faculty constantly monitors the compliance of the premises and technical equipment with the modern quality requirements, and appropriate classrooms have been created with the necessary multimedia equipment. Support functions for the development and implementation of study programmes are provided by RTU Study Department. RTU Programmes Management and Curriculum Design Unit plays an important role supporting the improvement of the study programme.

Students also evaluate the support provided by administrative and technical staff within the study direction. Every year, the RTU FEEM Student Self-government organises an award ceremony **“FEEM Pride”**, where students evaluate teaching staff and employees of RTU FEEM, and say “thank you” for the work contributed to the development of students and the faculty. In order to determine those who obtain the “FEEM Pride” award, representatives of the FEEM Student Self-government create questionnaire, where students of Bachelor’s and Master’s study programmes can propose teaching staff for nominations. In 2019, when the event was organised for the 16<sup>th</sup>

time, different nominations of teaching staff were proposed, for example, *the most precise teacher, the most innovative teacher, the most motivating teacher, the friendliest teacher, the most dynamic teacher*, etc., as well as **a new nomination** was created *Student support employee of the year*, which was received by one of administrative staff members.

RTU has established a rigid system for the management and development of study programmes. Proposals to introduce any changes in the curriculum are made by the Study Direction Committee based on the recommendations of the academic staff, references from employers, suggestions from student self-government, as well as observing the latest trends in the national economy and the labour market. The Study Direction Committee requests the Faculty Council to review and approve them. Based on the decision of the Faculty Council, the RTU Senate approves changes in the study direction. Amendments in the structure of study programmes are approved by the order of RTU Vice Rector for Academic Affairs. Technical support of the study direction is provided by the study programme record keeping as well as IT service. Such cooperation in the implementation of the study programmes within the study direction is to be evaluated as efficient and stimulating the development of the study direction.

**1.5. Description and assessment of the requirements and the system for the admission of students by specifying, inter alia, the regulatory framework of the admission procedures and requirements. The assessment of the study period, professional experience, and the options for the students to have their previously acquired formal and non-formal education recognised within the study direction by providing specific examples of the application of these procedures.**

The admission process and procedure of students matriculation is stipulated in the RTU Admission Regulations, which are elaborated based on the Law on Higher Education Institutions and Regulations of the Cabinet of Ministers No 846 issued 10 Oct 2006 "Regulations on Requirements, Criteria and Procedures for Enrolment in Study Programmes", as well as the specific requirements of study programs and the industry. The RTU Admission Regulations are approved by the RTU Senate and published on November 1 each year (see the files of Appendix 29-34 of the list of Internal regulations).

Admission requirements are logical, understandable, and linked to the goals defined in the RTU Strategy. Admission system is state-of-the-art, easily accessible, logically structured, and is evolving in line with today's digitalization trends, providing the potential students with the convenient and easy to use application to university registration tool.

Applicants are admitted to full-time and part-time undergraduate programmes based on the results of the **Centralized Examinations** (CE) in Mathematics, the Latvian language and the Foreign Language, and the final grades in individual subjects obtained in the Secondary Education, and the entry test results. If, in addition to these CEs, the applicant has a CE in Physics or Chemistry, the results of these CEs are taken into account in the ranking calculation.

In order to participate in the competition for the state budget funded seats, the rating in Mathematics CE is calculated as the average value of all Mathematics CE rating sections, and must be at least 12 percent.

To determine the candidate's rank in the competition, each CE rating, calculated as an average of all CE evaluation sections, and each entry test (if any applies) is multiplied by the appropriate

weighting factor and the resulting multiplications are added together. Some study programme applicants must pass an entry test, the result of which shall be multiplied by an appropriate weighting factor and summed up in the total calculation of rank.

Persons, who have received secondary education prior to 2009 (including), as well as persons, who have received secondary education abroad, or persons, who were exempted from passing the secondary education state examinations in accordance with the procedure set by regulatory enactments, may be admitted to the study programs based on their year grades in the secondary education document in the subjects mentioned in the RTU Admission Regulations, which must be successfully passed. Up to 2019, the admission based on the secondary education year grades was attributed to persons who completed secondary education prior to 2004. In general, the RTU Admission Regulations follow Regulations of the Cabinet of Ministers No 846.

Persons who have completed secondary education and have not passed any of the CEs mentioned in the RTU Admission Regulations or have failed the year grade, shall pass the CE in accordance with the Cabinet of Ministers Regulations No 335 "Rules on the content and procedure for centralized examinations".

Persons who have not passed CE in Latvian and who do not meet the requirements of RTU Admission Regulations, shall pass the entrance examination in Latvian as prescribed by RTU. The result is evaluated in percentage.

In compliance with Cabinet Regulation No 543 adopted on 29 September 2015 "Regulations on Replacement of the Foreign Language Centralized Examination in the General Secondary Education Program by Foreign Language Examinations Conducted by International Testing Institutions", CE in the foreign language can be replaced with a foreign language examination conducted by an international testing institution the certificate of which must be presented to the RTU Admission Committee.

The applicants who have acquired a Bachelor Degree in a field relevant to the study programme are enrolled to the graduate study programmes. The applicants take part in the competition with a weighted average grade from the Bachelor or professional study programme records. The weighted average grade is calculated as the sum of all the grades received in each study course multiplied by the credit points acquired in the study programme, and is divided by the total number of credit points within the study programme. If credit points are not verified, the number is calculated as the multiplication of the grades and contact hours obtained in each study course divided by the total number of contact hours.

Before applying for the doctoral studies, the candidate and the Head of the Doctoral Study Programme must agree upon the possible scientific advisor / consultant and receive his/her written consent. The Doctoral Thesis scientific advisor may be from another scientific establishment; however, the applicant must also choose the scientific advisor / consultant from RTU. Documents necessary for the competition are compiled by RTU Doctoral Studies Department. After the collection of documents, the Doctoral Studies Department submits them to the Scientific Committee of the respective Faculty, which draws the Ranking table of the applicants according to the evaluation criteria set by the Faculty Scientific Committee and approved by the order of RTU Vice Rector for Research.

There are two ways to apply for the state budget funded seats in undergraduate study programmes:

- Electronically in the Joint Enrolment Undergraduate Study Programme information system, using the e-service portal (<https://www.latvija.lv>). Applicants must confirm their electronic applications by personally arriving at the designated locations within the deadlines and

presenting the originals of the required documents;

- Arriving at the RTU Admission Committee in person, presenting the originals of the required documents.

There are also two ways to apply for the state budget funded seats in the graduate study programmes:

- RTU undergraduate study programme graduates can submit their applications online at RTU portal ORTUS or by visiting RTU Admission Committee;
- Bachelor study programme graduates from other higher education establishments can apply only in person at the RTU Admission

The applicants for PhD programmes, can submit application for full-time studies by arriving at the Admission Committee, bringing the required documents, within the admission deadlines.

Applicants who do not qualify for the state budget funded seats and applicants who have received their education outside Latvia, as well as in other specific cases, must appear in person at the RTU Admission Committee within the admission deadline, with the required documents.

Recognition of previously acquired formal and non-formal education at RTU is carried out in accordance with the “Regulation on the Recognition of the “Courses Completed at Other Universities and RTU Study Programmes” (Resolution of RTU Vice-Rector for Academic Affairs No 02000-1.1/29 as of 4 April 2016) and the “Procedure for Recognition of Competencies Developed Outside Formal Education or From Professional Experience and Learning Outcomes Achieved in Previous Education at Riga Technical University” (approved at the Meeting of RTU Senate on 23 September 2019, Minutes No 632).

RTU Admission Regulations are published at <https://www.rtu.lv/lv/studijas/uznemsana/uznemsanas-noteikumi> (for local students) and at <http://fsd.rtu.lv/> (for foreign and exchange students).

The procedure of recognition of a study period, professional experience, previously acquired formal and non-formal education within the study direction is convenient and relatively simple for students. When a student submits an application with necessary documents attached on mastering of similar study courses and/or professional experience, they are evaluated. In order to reference professional experience, students should prepare and submit a description of their professional activity, which is evaluated by the commission, which decides on compliance of the professional activity with the requirements of the study programme. An additional talk is possible, if it is necessary to clarify unclear matters.

Recognition of professional experience within the study direction takes place on a regular basis, every semester, in particular in the last 2 years. For example, in the Master’s study programme “Innovation and Entrepreneurship” students can reference their previous professional experience to the professional internship of 6 CP in the study programme. Such a procedure is logical, because at least two years of practical work experience in management is defined as a precondition for enrolment. For this reason, students have the total scope of knowledge about the functioning of the industry significantly exceeding the requirements set in the study programme. A similar procedure is also used in the Master’s study programme of the Riga Business School (MBA).

In the professional Master’s study programme “Organization and Management of International Economic Relations”, documents of several students were evaluated and previous education and/or experience in the professional area, including internship, was recognised.

In the professional Master’s study programme “Civil Engineering and Real Estate Management”, the results achieved in professional experience are recognised, when previous education and the

results achieved in professional experience have been recognised to reference specialising internship. The analysis of documents makes it clear that the student has long experience in the sector certifying her professional qualification. Other student, in addition to recognition of internship and specialising practice at Master level, had study courses recognised. This recognition was justified by the obtained professional internship certificates, lifelong learning documents and previous education, in combination with the results achieved in professional experience. In the professional Bachelor's study programme "Real Estate Management" one student had two study courses related to his professional competence recognised, because the student had been the chairman of the board in a local government company providing real estate management services for more than 10 years. In the first level professional higher education study programme "Real Estate Management" two applications for recognition of the results obtained in previous education and professional experience were approved.

Recognition of study courses mastered in formal education in all study programmes of the direction takes place almost every semester upon request of students.

In professional Bachelor's study programmes, students enrolled at later staged of studies have the study courses mastered at the previous level of studies or first level professional higher education study programme (college) recognised, if the study courses and their amount correspond to RTU study programmes. If, having obtained first level education, students continue education in the same specialisation, for example, having obtained the *qualification of a Personnel Specialist*, they continue studies *to obtain the qualification of a Personnel Manager*, then all the amount of studies mastered at the previous level of studies is recognised in accordance with admission rules. If a student decides to change the direction of specialisation, then the amount of general and field-specific courses is recognised.

#### **1.6. Assessment of the methods and procedures for the evaluation of students' achievements, as well as the principles of their selection and the analysis of the compliance of the evaluation methods and procedures with the aims of the study programmes and the needs of the students.**

Assessment of student learning outcomes is carried out in accordance with the "Regulation on the Assessment of Learning Outcomes" (approved at the Meeting of RTU Senate on 27 May 2017, Minutes No 610), which is available on Studies Regulations page of RTU web page ([https://www.rtu.lv/writable/public\\_files/RTU\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_studiju_rezultatu_vertesanas_nolikums.pdf) (in Latvian) English translation is Appendix 04 in the zip folder "List of Internal regulations"). Summative assessment system is used in appraisal of student achievements, it implies that the final grade is composed of numerous components.

The programs of the study direction "Management, Administration and Real Estate Management" are implemented in compliance with the requirements formulated in normative acts, the unified basic principles of the study organization specified by RTU and fulfilling all the requirements defined in the study courses. **The principles, procedures and process** of the assessment of students' achievements at **RTU are uniform**; they do not differ within the study direction and its programs. **There are differences in the choice and application of the methods** used, because the assessment of students' knowledge, skills and competence takes place in accordance with the results to be achieved defined in the specific study course.

In the course descriptions of the study program there is a set of relevant knowledge, skills and

competences and their evaluation system, defined learning outcomes for the achievement of which credit points are awarded.

Pedagogical methods used in the implementation of study courses, as well as assessment forms and methods are selected by the instructors responsible for the study courses in compliance with course curriculum and specifics of the programme, as well as student needs. A member of academic staff should inform students about particular assessment criteria at the first lecture/practical class.

The main advantage of the summative assessment system is that the final grade is made up of several components. Therefore, the students may contribute to their final grade working during semester. Criteria for assessment of the study courses and individual/home tasks are published in ORTUS portal beforehand. During semester, the assessment for each home task, test, report, presentation and any other task is ascribed certain weight in the final grade. Exam grade may not exceed 50% of the final grade. Academic staff may take into consideration and also assess student attendance. Assessment structure for the study course is determined by the academic staff themselves, abiding the resolution of RTU Senate that the exam grade may not contribute more than 50% to the final grade. Selecting assessment criteria and methods for evaluation of student achievements, specifics of each study program and learning outcomes are taken into consideration.

In order to advance professional pedagogical competences of the academic staff, courses and seminars on the newest pedagogical methods are organized regularly. Qualification advancement is provided at both the University and faculty level, organizing academic conferences and methodological seminars. The Centre for Academic Excellence has been established and successfully operates at RTU; it organizes various events aimed at professional advancement of academic personnel at the University level.

*(in addition, see the description of each study programme).*

**1.7. Description and assessment of the academic integrity principles, the mechanisms for the compliance with these principles, and the way in which the stakeholders are informed. Specify the plagiarism detection tools used by providing examples of the use of these tools and mechanisms.**

Since 2010 all students that graduate from any RTU study programme should upload electronic versions of their graduation papers in ORTUS portal in order to improve the quality of graduation papers, create a bibliographic database of the graduation papers and introduce an automated control system for detecting plagiarism. RTU uses two major plagiarism control tools in the study process:

1. Since 2015 graduation papers of study programmes of the study direction have been checked in the joint computerised plagiarism control system (JCPCS), which unites numerous Latvian universities and colleges. RTU uses the system in cooperation with the University of Latvia. This system is used to check graduation papers after their uploading to the ORTUS environment. JCPCS complements and extends plagiarism identification opportunities.
2. Starting from 20 December 2017, RTU has been having Turnitin®, the world's leading tool for the correction of written papers and combating plagiarism that is used daily by millions of students and academics around the world. Turnitin® tool is integrated with RTU ORTUS e-study system and provides full service of submitting, correcting, verifying the originality

(plagiarism) and return of the submitted papers. Turnitin® offers two main platforms: a platform that automatically checks for the percentage of non-genuine content (plagiarism) and a platform that allows to electronically correct the submitted papers. This tool is used to check all the electronic versions of graduation papers submitted for defence and further control measures are operatively implemented for potential plagiarism detection.

Graduation papers are checked in both systems in parallel, thus using the advantages of both systems. The developed Doctoral Theses are in a similar way controlled with extreme scrutiny. Since 1997, the Researcher Code of Ethics has been effective at RTU (see the file of Appendix 19 of the list of Internal regulations). Academic Integrity Code, approved at the RTU Senate meeting of 29 February 2016. The aim of the Academic Integrity Code is to strengthen academic culture and integrity in the academic environment of RTU, to explain the concept of academic integrity and related actions, to define main procedures in examination of academic fairness violations. (see [https://www.rtu.lv/writable/public\\_files/RTU\\_rtu\\_studiju\\_reglaments\\_7.1.1.4..pdf](https://www.rtu.lv/writable/public_files/RTU_rtu_studiju_reglaments_7.1.1.4..pdf))

In addition, RTU participates in different initiatives that bring forward and solve academic integrity related issues. RTU is a member and one of the founders of the European Network for Academic Integrity (ENAI), where it is involved in active work sharing experience, keeping updated about academic integrity related issues, and organizing conferences. The Dictionary of Academic Integrity Terms and Guidelines is one of the newest aids that has been developed and will soon be published by RTU Press. In the framework of Specific Support Objective (SSO) 8.2.3 of the project “Development of Efficient Management of Riga Technical University”, RTU, in cooperation with the University of Latvia (UL) and Riga Stradins University, develops educational aids, as well as participates in the establishment of the Latvian national academic integrity organization and development of plagiarism control tools.

On 23 February 2018, a qualification improvement seminar for RTU FEEM academic staff “Plagiarism, infringement of copyright and preventive measures” was held.

The organisational units implementing the study programme have developed a control mechanism, i.e. the initial check is performed in the process of interim assessment, which is performed by the work of the Advisory Examination Commission. When the student comes to these examinations, he or she should submit the electronic version of the performed work and the paper is checked in free plagiarism control tools in presence of the student. When students draft their graduation papers, they are instructed about plagiarism and its consequences several times. Methodological materials contain detailed instructions on correct presentation of references. This process allows to reduce plagiarism and highlights faults in the student’s paper, which needs to be rectified. The generally accepted “good practices” show that more attention should be paid to the papers showing 20 percent or more matches. A message is received from the system, when the match level is higher than 20%. The papers are examined, reasons of matches in the text are evaluated and a decision is made whether the student should be allowed to defend his or her Master’s thesis.

Some examples from different study programmes:

- In professional Master’s study programme “Civil Engineering and Real Estate Management”, Turnitin® found matches within up to 30% in 6 papers in the reporting period. The generally accepted “good practices” show that more attention should be paid to the papers showing 20 percent or more matches. These 6 papers with matches over 20% were subjected to an additional expertise. The organisational unit evaluates, what the matches consist of. When evaluating the papers, a conclusion was made that the match percentage consisted of the content of regulatory enactments and information published on websites of enterprises or institutions, which students had copied in their paper including a reference, or have mentioned its source in the text. One paper had a match in the joint computerised plagiarism



control system (JCPCS), and its examination led to the conclusion that data from the database of the statistical board, use of regulatory enactments, publicly available information of enterprises match. Foreign students of the study programme had 4 papers with match percentage of 50% in academic year 2017/2018. These students were suspended from writing their paper, a plagiarism evaluation commission was set up, which decided to allow students to remake their papers and defend them in the next semester.

- In first level professional higher education programme “Real Estate Management”, Turnitin® found matches within up to 25% in 2 papers in the reporting period. In professional Bachelor’s study programme “Real Estate Management”, Turnitin® found matches within up to 35% in 4 papers in the reporting period. These 6 papers with match over 20% were subjected to an additional expertise evaluating what the matches consisted of. When evaluating the papers, a conclusion was made that the match percentage consisted of the content of regulatory enactments and information published on websites of enterprises or institutions, which students had copied in their paper including a reference, or have mentioned its source in the text.
- No plagiarism, on which a commission had to decide, was found in professional Bachelor’s study programmes “Business Logistics” and “Organization and Management of International Economic Relations”, as well as professional Master’s study programme “Organization and Management of International Economic Relations”. Matches up to 30% were found in several papers using the Turnitin® software in the accreditation period. Since the generally accepted “good practices” show that more attention should be paid to the papers showing 20 percent or more matches, then those papers were checked, matches and reasons thereof were reviewed. In some cases, the author made a reference to his or her own previous written content, but has not included a reference (for example, a reference to a Bachelor’s thesis in a Master’s thesis). In order to prevent the occurrence of plagiarism, two advisory examinations take place while graduation papers are drafted. During these examinations students report on what they have done, listen to recommendation for improvements in the paper. Since there was only one graduates in the flow of foreigners in the professional Master’s study programme “Organization and Management of International Economic Relations”, there is no more detailed analyses about plagiarism in papers of foreign students.
- No plagiarism has been stated in the professional Master’s study programme “Leadership and Management” since the beginning of use of the Turnitin® software. No reports have been received from the Turnitin® system in the reporting period, which was evaluated and where a decision to permit defence of the paper at the State Examination Board was taken, because matches in the text were related to quotes from books and regulatory enactments.
- One case of plagiarism has been identified in the professional Master’s study programme “Innovation and Entrepreneurship” in the reporting period. Plagiarism was submitted by a foreign student. Having examined the situation, the student was not permitted to defend the paper. The student was later expelled. Turnitin® has identified matches within up to 25% in individual papers. These papers have been individually examined and it has been stated that there was no plagiarism.
- For a part-time extramural graduate of the academic Bachelor’s study programme “Entrepreneurship and Management, in 2018, it was stated that the drafted and defended Bachelor’s thesis was plagiarism, but the plagiarism determination programme detected this too late (6 months after graduation), when the paper had already been defended. An Academic Integrity Violation Commission had been set up, which stated that the paper of a student in academic year 2016/2017 was plagiarism, because 54% of the text of the Bachelor’s thesis was from the Bachelor’s thesis defended in 2014, which in turn consisted of 71% of a paper of a graduate of the University of Latvia. The following actions had been taken. An entry about unfair action, a violation of the Academic Integrity Code and plagiarism

in a Bachelor's thesis was made in the RTU study management system. The graduate was invited to come to RTU and provide an explanation about the violation of academic integrity. The student responded to the invitation and arrived, admitted his violation and an agreement was reached that he would be re-enrolled and get a diploma. The previously obtained diploma was annulled.

- In professional Master's study programme "Entrepreneurship and Management", matches within up to 30% were stated in Master's theses in Latvian and English in the reporting period. When evaluating the papers, it was stated that the match percentage consisted of information from regulatory enactments and information published on websites of enterprises or institutions, which students had copied in their papers including a reference, or have mentioned its source in the text. In studies in English, two Master's theses had been found with a match of 52% and 69%, both cases were examined in the ethics commission and a decision was made to draft the Master's thesis again on other topic and with another supervisor.
- In Bachelor's study programme "Comprehensive Quality Management" 17% of unoriginal content or text matches have been found in one graduation paper. Having carried out a profound analysis of the paper and the sources used to write it, it was stated that the matches came from references of information on a website of an enterprise, which have already been used by other student of other study programmes in his graduation paper in previous years. The student was informed about identified matches in text, which matched other student's paper. Since it was stated that text matches were insignificant, based on an application addresses to the director of the study programme the submitted paper was returned to the student allowing him to rework and resubmit it.

Overall, it can be concluded that the educational work with students was very successful, because in the majority of cases no cases of plagiarism were stated, as well as the number of matches in the text was small.

**1.8. Specify the websites (e.g. the homepage) on which the information on the study direction and the relevant study programmes is published (in all languages in which the study programmes are implemented) by indicating the persons responsible for the compliance of the information available on the website with the information published in the official registers.**

Detailed information on the study direction and the study programmes pertaining to it with the indication of the languages of instruction is available at RTU web page:

1. RTU web page in the section on education opportunities in the Latvian language (<https://www.rtu.lv/lv/studijas>) (responsible person – I. Bušovska, Head of the Admission Department);
2. RTU web page in the section containing comprehensive information on education opportunities in the English language (<https://www.rtu.lv/en/studies>) (responsible person – I. Tipāns, Director of the International Cooperation and Foreign Students Department);
3. Interactive web pages dedicated to RTU study directions, study programmes therein, as well as the detailed description of the offered study courses in the Latvian and English languages (<https://stud.rtu.lv/rtu/vaaApp/sprpub>) and (<https://info.rtu.lv/rtupub/disc2/list>) (responsible person – G. Alksnis, Head of the Program Management and Curriculum Design Unit);
4. Web page designed for the foreign student target audience on RTU study programmes

implemented in English and student mobility opportunities (<https://fsd.rtu.lv/>) (responsible person – I. Tipāns, Director of the International Cooperation and Foreign Students Department);

5. web page in the section on study programmes in the Latvian language: <https://www.rtu.lv/lv/ievf/toposajiem-studentiem-ievf/studiju-programmas-ievf> (responsible person – M. Smirnovs, FEEM's Senior Administrator of Computer Networks);
6. FEEM web page in the section on study programmes in the English language: [http://feem.rtu.lv/?page\\_id=4080](http://feem.rtu.lv/?page_id=4080) (responsible person – M. Smirnovs, FEEM's Senior Administrator of Computer Networks).

## **II - Description of the Study Direction (2. Efficiency of the Internal Quality Assurance System)**

### **2.1. Assessment of the efficiency of the internal quality assurance system within the study direction by specifying the measures undertaken to achieve the aims and outcomes of the study programmes and to ensure continuous improvement, development, and efficient performance of the study direction and the relevant study programmes.**

RTU operates pursuant to “Constitution of Riga Technical University” (approved by the Law “On the Constitution of Riga Technical University”, the law was adopted in the Saeima on 23 October 2014 (see the file of Appendix 01 of the list of Internal regulations.).

“RTU Strategy and Development Programme for 2014–2020” (approved at the meeting of RTU Senate on 28 October 2013, Minutes No 573) lays out the key principles of RTU development in the period until 2020 (see <https://www.rtu.lv/en/university/strategy>). Three aims of the University are defined in the Strategy: (1) high quality study process; (2) excellence in research; and (3) sustainable innovation and commercialization activities, as well as definite tasks and qualitative indicators pertaining to these aims, for example, development and implementation of competitive study programmes in cooperation with foreign universities. In order to efficiently control implementation of RTU Strategy, RTU Strategy Management System has been established, which provides that strategic aims, activities and tasks are cascaded to the level of definite organizational units and their staff.

RTU has an internal quality management system in place in accordance with the RTU Quality Policy updated and approved at the meeting of RTU Senate on 25 September 2017, Minutes No 612 (see: [RTU Quality Policy](#)) and the RTU Excellence approach approved at the meeting of RTU Senate on 30 January 2017, Minutes No 606 (see: [RTU Excellence Approach](#)). Since the study direction “Management, Administration and Management of Real Estate” is one out of 12 study directions implemented by RTU, and its internal quality system is closely related to RTU Quality Management System.

RTU Quality Policy is aimed at implementation of RTU mission and achievement of strategic aims – scientific research, academic, infrastructure and organizational excellence, and recognizability. The Quality Policy provides the framework for implementation of RTU Strategy, and the paths for development and improvement of research, study process and organization. RTU Quality Policy is reconciled with the ENQA standards and guidelines. RTU Excellence Approach and Quality Policy are reciprocally integrated documents, which determine that RTU employs the EFQM quality model.

Starting with December 2018, RTU has been a member of the European Foundation for Quality Management, having joined the global quality cooperation network.

RTU Excellence Approach (see the figure in file "RTU Excellence Approach") has been elaborated in order to promote purposeful development of the University as an excellent organization, and RTU Constitution, Strategy and Quality Policy are integrated therein; it is based on the Standards and Guidelines for Quality Assurance in European Higher Education Area (ESG) developed by the European Association for Quality Assurance in Higher Education and the basic principles of the EFQM Excellence Model.

The structure of RTU Excellence Approach (see the figure in file "Structure of RTU Excellence Approach") is designed in accordance with the criteria of the EFQM Excellence Model and forms the basis for the maintenance of performance at a high level, a prerequisite for its continuous improvement, as well as for achievement of sustainable results of RTU activities and excellence. Student results are a separate criterion, they are also in part transferred to the main activity results; thus, the quality of the study direction is closely related to RTU quality management.

To promote introduction of the model of the EFQM total quality management system, as well as to assist in the compilation of a self-assessment report, a working group was established at RTU on 29 September 2017 (Rector's order No 01000-1.1/225), which comprised representatives of RTU administration, faculties and Student Parliament (18 in total). Several of them are administrative and academic staff representatives and doctoral students related to this study direction:

- Head of the working group – Artūrs Zeps, RTU Vice-Rector for Development;
- Coordinator of the working group – Juris Iljins, Director of the Quality Management and Document Management Department.
- Members of the working group:
  - Elīna Gaile-Sarkane, Dean of RTU FEEM;
  - Zane Rostoka, Head of Personnel Department;
  - Laila Eliņa – Head of the Scientific Activity Coordination and Information Centre;
  - Laura Zaķe – Head of the Department of Financial Management of Projects;
  - Inga Lapiņa – FEEM Vice-Dean for Academic Affairs;
  - Deniss Ščeuļovs – Director of the Institute of Business Engineering and Management.

Potential problems were identified and suggestions for improvement of RTU Quality Policy, including improvement of academic quality, were made at the meetings of the working group. In the period of one year, the working group considered compliance to nine criteria of the EFQM model and analysed 101 sub-criteria, having identified 133 problems in total and having made 146 suggestions. The priority problems were included in RTU Development Plan as tasks set for a definite term to be solved by the respective organizational units. Quality model review report is drawn up with regard to the Quality System, which identifies the areas that should be improved. Performance indicators and results of student polling are integrated in RTU Quality System.

Application of RTU Excellence Approach is based on process-oriented activities and includes clear process flow and their interaction. Striving for excellence, RTU actively works on process planning, definition of its aims and interaction analysis. RTU has developed criteria and methods for ensuring efficient process operation and management. RTU conducts the process analysis and provides recommendations and suggestions on process improvement, which are discussed with process managers and persons responsible for process procedures; later they are approved as performable tasks with a definite completion term. Task creation and control tools inbuilt in the Document System, reports on task performance at the organizational unit level provide the necessary support for achievement of performance indicators of the annual aims and tasks set in RTU Strategy. For example, development of the uniform study programme application structure and assessment

criteria is one of the tasks for the process “Provision and Organization of Studies” approved in the system with the completion term set until academic year 2019/2020; they were developed and approved on the study programmes developed within SSO 8.2.1 project.

The departments and institutes, faculty councils, the service of the vice-rector for academic affairs, the service of the vice-rector for development, the student parliament and the RTU Senate are involved in ensuring internal quality of studies at RTU. These institutions comprehensively evaluate the study directions and programmes to be newly created, as well as changes to study directions and programmes, evaluate annual self-assessment reports of study directions. The internal quality assurance mechanism of studies at RTU is functioning at the level of administration, faculties, study directions and study programmes of the university.

Study Direction Committees at RTU supervise academic activities in the respective study direction and are responsible for curriculum of the study programmes within the study direction, including accreditation of the study direction. Members of student self-government are involved in ensuring the quality of the study direction and study programmes implemented therein; they actively participate in the work of the decision-making bodies of the University: RTU Constitutional Assembly, RTU Senate, RTU Senate commissions and faculty councils.

At the level of faculty and study direction, internal quality is ensured by the FEEM Council, the Study Direction Committee and the director of the study direction, directors of study programmes, administrations of the institutes or departments implementing the study programme, as well as the FEEM student self-government. Control of internal quality at the level of faculty and study direction is ensured by the deputy dean of the faculty for studies or the person or committee delegated by them.

The RBS quality assurance system respects the principles accepted in other programmes of the direction complementing them with international accreditation and the requirements of partner universities. In order to renew international accreditation (*CEEMAN IQA*), once in 6 years RBS prepares a comprehensive report, which is checked by the international commission consisting of 3 persons. Moreover, a report on individual RBS development matters is prepared upon request of partner universities and the total report is submitted to the RBS Convent of Councillors.

In 2008, RTU FEEM and RBS joined the United Nations (UN) initiative Principles of Responsible Management Education or PRME to support and implement in its activities all the six principles of responsible management education with regard to the aim, values, methods, studies, partnership and dialogue. PRME is the UN initiative launched in 2007 during the UN Global Compact Leaders Summit in Geneva. The mission of PRME is to promote changes in business and management education and research at a global scale by developing understanding of universities of UN sustainable development goals using the framework of Principles of Responsible Management Education. The purpose of the PRME initiative is to help to improve operating principles of universities, to improve compliance of the study curriculum, study methods, research and strategy with the new challenges of the modern rapidly developing world and sustainable development guidelines, as well as to foster social responsibility in general, developing a generation of young and progressive entrepreneurs and business leaders, who are able to successfully manage complicated challenges of the 21<sup>st</sup> century in both companies and in society in general. The PRME initiative is based on internationally recognised values – the principles of the United Nations Global Compact.

In this period, achievements in the area of sustainable and social responsibility have been summarised for the fourth time for the PRME report of January 2019. FEEM and RBS submit a self-assessment report certifying their compliance with the global idea of sustainable development and importance of socially responsible management education and research, as well as showing the

true will and involvement in their implementation at RTU. FEEM and RBS prepare a self-assessment and the final compliance report once in two years, the reports are available electronically: <http://www.unprme.org/reports/PRME2017.pdf> and <http://www.unprme.org/reports/RigaBusinessSchool2016final.pdf>.

Every year study programmes of the study direction “Management, Administration and Management of Real Estate” are evaluated and an annual self-assessment report is prepared. In order to ensure qualitative evaluation of the programme and preparation of reports, the study direction commission approves a self-assessment working group for the study programme or 2-3 programmes in the same field. Each self-assessment working group includes the director of the study programme, leading academic staff of the study programme, industry specialists, student representatives in the specific programme and the study office administrator (see Annex). In preparation for the external assessment, which we will have this year, several additional activities have been organised in the last 2 years:

- in January – February 2018 at study direction meetings there were discussions on the justification of the study direction and the study programmes included in it, as well as the analysis of uniqueness of the study programmes in comparison with other similar study programmes in Latvia and foreign countries;
- from January to May 2018 FEEM held several working group meetings to conduct a SWOT analysis of study directions;
- in 2018 and 2018 there were qualification improvement seminars for FEEM academic staff on the preparation of the Self-assessment report;
- in 2018 and March-June 2018 there were meetings between the head of the study direction and the FEEM dean with all the directors of study programmes in respective institutes and departments to discuss the audit results of study programmes and development plans of programmes.

**2.2. Analysis and assessment of the system and the procedures for the development and review of the study programmes by providing specific examples of the procedures for the development of new study programmes within the study direction (including the approval of study programmes), the review of the study programmes, the aims, and regularity, as well as the stakeholders and their responsibilities. Description of the mechanism for obtaining and providing a feedback, including with regard to the work with the students, graduates, and employers.**

Study programme development and revision processes are regulated according to the "Procedure for Application, Elaboration and Amendment of the Study Programmes" (published on [https://www.rtu.lv/writable/public\\_files/RTU\\_studiju\\_reglaments\\_4.6.\\_programmu\\_izstradasanas\\_kartiba\\_29.04.2019.pdf](https://www.rtu.lv/writable/public_files/RTU_studiju_reglaments_4.6._programmu_izstradasanas_kartiba_29.04.2019.pdf) (in Latvian); English translation is Appendix 06 in the zip folder "List of Internal regulations"), which in detail specify activity sequence and parties involved, starting with drawing up an application for new study programme elaboration and finishing with study programme closure. Procedures are reconciled with the effective national regulatory enactments pertaining to study programme licensing and amendment.

Revision of the study programme curriculum is the responsibility of the Study Direction Committee. The responsibilities and activities of the committees are regulated by the “Regulation on the Study Direction Committee” (approved at the RTU Senate on 3 December 2012, Minutes No 594;

published

on

[https://www.rtu.lv/writable/public\\_files/RTU\\_studiju\\_reglaments\\_4.7.\\_studiju\\_virziena\\_komisijas\\_nolikums\\_29.04.2019.pdf](https://www.rtu.lv/writable/public_files/RTU_studiju_reglaments_4.7._studiju_virziena_komisijas_nolikums_29.04.2019.pdf), (in Latvian); English translation is Appendix 07 in the zip folder "List of Internal regulations").

Expert assessment of the study programme is performed by the Study Direction Committee, then – by the Faculty Council or the councils of several faculties involved. The expert assessment procedure is finalized by the Study Department. The Study Direction Committee evaluates the quality of the draft study programme and the compliance of its curriculum to the planned aims and tasks.

In order to analyse study directions and to receive feedback, RTU has developed a polling cycle:

- Each semester, the polling of the students at a study programme is conducted to find out student opinion about instructor's work quality and obtain evaluation of the study programme. Polling is conducted electronically in *ORTUS* portal, the results are received by each instructor personally and the head of the organizational. The summary of the results are summarised at department meetings, at the meeting of the Study Direction Committee and the meeting of the Faculty Council.
- After each graduation round, polling of the graduates of Bachelor and Master programmes is conducted. The results are taken into consideration in the improvement of the study programmes within a study direction and discussed at methodological seminars.
- Annual polling of Doctoral students and Doctoral alumni has been introduced, it is also planned to conduct surveys of Doctoral entrants. The polling on the admission procedure and study process has been launched.
- It is also planned to run regular centralised polling of RTU employers. Polling of employers presently takes place at the end of internship of each student, as well as within the scope of development of study programmes.

The following mechanisms are used to obtain feedback from employers.

RTU Council Convention, composed of representatives of different sectors, advises RTU Senate and Rector on the RTU Development Strategy. It has the right to propose an issue to the Senate and the Constitutional Assembly.

The RTU Strategy and its development program are presented in the RTU Council Convention, the decision-making bodies, as well as to cooperation partners, industry associations and leading companies, with feedback and suggestions being incorporated into the RTU documents.

The involvement of stakeholders and the realization of major projects is the responsibility of the Vice-Rector for Strategic Development. He clarifies existing needs, coordinates key priorities and activities, implements recommendations and promotes the sustainable development of the RTU.

Employers, as providers of the internship of RTU students, after completing the practice, prepare online feedback on the knowledge and skills of the student, thereby also assessing the relevance of the knowledge provided by the study program to the needs of the industry.

Employers' feedback is obtained also from the Council Convention, composed of representatives of different sectors and industry associations, as well as from the assessments provided by employers on the portal <https://www.prakse.lv> (RTU is the most recommended university at <https://www.prakse.lv/top> for several consecutive years (information available only in Latvian)).

Feedback within study programmes is received through every semester student polling, regulated by the "Regulation on Student Polling for Assessment of the Study Process" (approved at the RTU Senate on 27 January 2014, Minutes No 577; published on



[https://www.rtu.lv/writable/public\\_files/RTU\\_anketesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_anketesanas_nolikums.pdf) (in Latvian); English translation is Appendix 20 in the zip folder "List of Internal regulations").

Once a year the RTU FEEM student self-government organises an Annual Teacher Award. The Annual Teacher Award is presented in several nominations, where candidates are proposed based on a special polling.

On 10 April 2018, the RTU FEEM Council approved the Rules of Procedures of the Student Self-Government of the RTU Faculty of Engineering Economics and Management (decision No. 22000-1.2/31). All members and activists of the RTU FEEM SG are bound by these rules. The rules set out the structure (positions) of RTU FEEM SG and job duties. The goals of RTU FEEM SG is to represent FEEM students; to defend academic, social rights and cultural life interests of students at FEEM and RTU and to promote creative and innovative environment favourable for studies and recreation at FEEM. During an academic year, the rules for academic group leaders at RTU are also actively implemented providing for a meeting of group leaders of each programme with the director of the programme.

Study programme course abstracts and course programmes, methodological materials, newest educational literature and methodological instructions for study papers (reports, study papers, internship reports and graduation papers) are reviewed once an academic year.

Courses and seminars on latest teaching methods are organised for academic staff, as well as attendance of courses to improve qualification is promoted. Academic staff and heads of study programmes participate in different experience exchange activities cooperating with universities of other countries, meeting representatives of respective institutions and businessmen, as well as discussing among themselves latest developments in the sector, research papers and projects of students by analysing their results.

The Study Direction Committee analyses recommendations from employers and external experts, which are used as the basis for improvement of the study programmes.

In order to receive feedback from RTU graduates, RTU Alumni Association has been established. It actively operates at the University (<http://alumni.rtu.lv/>, <https://www.facebook.com/RTUAlumni/> (information available only in Latvian)) and runs an online community platform (<https://rtuconnect.net/>), which aims at developing alumni traditions. The Association organizes various events, which bring graduates back to the University, allow for networking, cooperation among the graduates and with the University, and integration in University activities. RTU Grand Graduation Ceremony is a major event introduced by the Association; it gathers the respective year graduates from all nine RTU faculties, academic and general staff, as well as guests.

**2.3. Description of the procedures and/or systems according to which the students are expected to submit complaints and proposals (except for the surveys to be conducted among the students). Specify whether and how the students have access to the information on the possibilities to submit complaints and proposals and how the outcomes of the examination of the complaints and proposals and the improvements of the study direction and the relevant study programmes are communicated by providing the respective examples.**

In order to promote continuous improvement of the quality of studies and provide students with the opportunity to submit proposals and complaints on various study-related issues in accordance with



the “Standards and Guidelines for Quality Assurance in the European Higher Education Area - ESG”, in the reporting period from 2013 to mid-2019, at Riga Technical University, the examination of students’ recommendations and complaints was carried out; this was done by involving the structural units to which the applications related, as well as the student self-government of the respective faculty.

A new document was approved in 2019 and now Student complaints and proposals are considered in compliance with "Procedure for Submission and Examination of RTU Students' Proposals and Complaints" (published at <https://www.rtu.lv/en/university/proposals-and-complaints> and attached in the section "Other Annexes").

The Procedures stipulate how RTU students may submit suggestions and complaints concerning the study process and other issues and determine the terms for consideration of applications and summary of application statistics.

Under the new arrangements, a total of 50 complaints/proposals have been received between 12 August 2019 and 13 January 2020, four of which have been submitted anonymously. Of the submissions 13 were complaints, 27 were problems and 10 were suggestions across eight topics (subject: the number of complaints or problems / the number of proposals received):

- Study process: 19 / 5
- Sports: 3 / 1
- IT issues: 3 / 2
- Maintenance of infrastructure issues: 7 / 0
- Accommodation related: 4 / 0
- Scholarships: 1 / 0
- Foreign students' questions: 2 / 0
- Other: 1 / 2

Regarding the study process issues, six of them were related to the study planning, another six were related to the communication issues between teacher and student. Suggestions have also been received for new study programs and the introduction of additional classes.

Complaints about sports issues concern the amount of money awarded to sports undergraduate (100 euros) and graduate (10 euros) students.

IT issues and suggestions were related to improving ORTUS or inserting incorrect schedules.

Other complain were about alleged harassment and two suggestions for infrastructure improvements – the construction of roofed bicycle sheds, the lack of facilities around faculties and student accommodations.

Complaints about maintenance of infrastructure issues were about the cleanliness of shared facilities at faculties.

Of the submitted complaints and suggestions, seven are related to the faculty implementing the study direction.

The administration of RTU FEEM constantly monitors the study process and always listens to suggestions and complaints of students and sees that all the issues are resolved. Every semester group leaders of each course of the study programme jointly with representatives of the FEEM Student self-government organise a meeting with the director of their study programme to discuss improvements to the study process and listen to suggestions regarding matters of importance for students.

A few complaints were received in writing within the study direction during the reporting period

(since academic year 2013/2014), all of them were examined in accordance with the established procedure. For instance:

**1) an appeal regarding the results of the tender for rotation of state-funded study places.** A student of the Bachelor's professional study programme "Business Logistics" submitted an appeal regarding the results of the tender for rotation of state-funded study places. An appeal committee was established in accordance with the regulations of the tender for rotation of state-funded study places of RTU FEEM. To investigate the situation, the appeal committee asked the parties involved – departments and the director of the study programme, to prepare a report on the assessment of learning outcomes in study courses, as well as the explanations of the teaching staff involved about the assessments and the examination procedure. Having evaluated the situation, the appeal committee has decided:

- To keep in force the rotation results, because all the budget students in this programme have reached the level of academic performance defined in the additional assessment criteria approved at the FEEM Council meeting.
- To propose the FEEM Student Self-Government to conduct a survey among students of the faculty on the matter – whether the level of academic performance defined in the rotation regulations as decided based on the proposal of students at the FEEM Council meeting of 28 June 2016 should be left unchanged, or it should be increased by changing the weighted average grade for undergraduate study programmes from 6.0 to 7.0 and for higher level study programmes from 7.0 to 8.0.

In the next academic year, the FEEM Student Self-Government conducted a survey, where the majority of students voted for leaving in force the set level of academic performance.

**2) a complaint about non-compliance of the content of classes of an elective course with the study course description.** The application was received from a student of the Master's academic study programme "Entrepreneurship and Management" about non-compliance of the content of classes with the study course description. The student believed that she was misled by the course description to select the elective study course. A committee for examination of the application was created, which evaluated compliance of content of the study course with its published description. The committee decided: to instruct the responsible department to evaluate and update the study course description – content, expected learning outcomes, list of readings, as well as to talk to the teaching staff on the improvement of the study process. An official reply letter was sent to the student with an explanation and an offer to select similar study courses specifying their schedule.

**3) a complaint about the process of drafting a graduation paper.** An application of a student of the Master's professional study programme "Organisation and Management Strategy of International Economic Ties" about, in her opinion, "unprofessional attitude in the process of drafting a Master's thesis". A committee for evaluation of the process of drafting graduation papers was created. In relation to the complaint, the commission studied the situation, listened to the opinions of the parties involved and evaluated all the received document – the student's application, a written explanation of the situation by the study office manager, a written explanation of the situation, an explanation of the head of the department and the director of the study programme. The commission found that the student had not informed the management of the department and the FEEM administration according to the established hierarchy about her problems in the process of drafting her Master's thesis. The opinions of responsible employees of the department and the student differed considerably, the student had not drafted her Master's thesis in a timely manner and in accordance with the set requirements, therefore the statement about "unprofessional attitude of the supervisor" made in the complaint has not been confirmed.

The student was informed that academic staff and FEEM administration were open to productive discussion and resolution of conflicts in line with ethical standards, the hierarchy established at RTU and internal rules, and was urged to complete preparation of her paper in the next semester.

4) **a complaint about the teacher of the study course “English”.** An application of groups of first-year students of Bachelor’s professional study programmes “Comprehensive Quality Management” and “Safety Engineering” was received stating that the teacher had unacceptable pedagogical approach and the teacher evaluated the content of opinions rather than the knowledge of language, which was unacceptable in the study process. Moreover, in accordance with the regulations for assessment of learning outcomes approved by the RTU Senate, the final grade of the course consisted of the summative assessment, which would not be appropriate in this case. The FEEM Dean asked the director of the RTU Institute of Applied Linguistics to change the teaching staff for both student groups to avoid potential negative consequences in the study process. The course teacher was replaced on the next class.

5) **complaints about the teaching staff of the study course “Mathematics”** Several complaints about teachers of the RTU Department of Probability Theory and Mathematical Statistics, which provides the study course “Mathematics” were received from students of Bachelor’s study programmes “Entrepreneurship and Management”, “Human Resources Management” and “Comprehensive Quality Management”. The content of the complaint was related to the request to evaluate professionalism of the teaching staff and to change the teaching staff, because it was difficult for students to perceive and master the study course. Four official applications were registered in the reporting period. A commission for examination of the application had been created, which analysed the situation, organised several talks with the head of the involved department, course teachers, students and directors of programmes. A special working group was created, which included teaching staff of the course “Mathematics”, teaching staff of FEEM leading related courses, for example, “Statistics”, “Economics”, “Business Intelligence Technologies”, etc. The working group updated the content of the study course “Mathematics”, expected learning outcomes and the assessment methodology. Upon request of students, teaching staff for individual study programmes was changed. In the last two years there have been no complaints about the implementation of the course. Moreover, students proposed two teachers of the course “Mathematics” for nominations “FEEM Pride 2019”.

All the matters are constructively solved within the study direction. In case of each complaint or student’s application, in accordance with the procedure, the matter is examined, and a committee is organised, which always includes representatives of the FEEM Student Self-Government.

## **2.4. Provide information on the mechanism for collecting the statistical data, as developed by the higher education institution/ college. Specify the type of the data to be collected, the collection frequency, and the way the information is used to improve the study direction.**

RTU Quality Policy provides the framework for implementation of the Strategy, the paths for development and improvement of research, study and organization processes. RTU Quality Policy and implementation thereof employ a fact-based approach - decisions are based on the acquired objective data, information analysis and monitoring.

RTU draws up quality reviews based on the analysis of processes and their results. Quality reviews are drawn up once a year, summarizing the data on performance indicators of RTU administration,

core activities and support processes.

28 performance indicators characterizing process quality are set for one of the core RTU activity processes "Organization and Management of the Study Process". The data are summarized once a year for the previous academic year by study level and study programme.

Performance indicators characterize the quality of entrant enrolment process, study process planning and the quality of implementation of studies - implementation of the initial admission plan, number of matriculated entrants vs. number of entry applications, number of entry applications with RTU as the first priority vs. all matriculated students, number of graduates vs. total number of students, number of exmatriculated students (except for graduates) vs. total number of students, number of students with academic arrears vs. total number of students, number of students exmatriculated due to academic failure vs. total number of exmatriculated students, number of timely signed learning agreements vs. all signed learning agreements, etc.

Observing the current study programme performance, reachable qualitative or quantitative aims are set for the indicators when possible, e.g., 65% of RTU Bachelor programme graduates continue studies at Master programmes.

The data in the quality review that is submitted to RTU administration are analysed by study level, by faculty and study direction. Indicators of numerous study programmes are compared with the general average RTU level.

The Study Department organizes further review and data forwarding to the faculties and directors of the study programmes, whereas process managers introduce the necessary improvements. Changes to the approved processes occur in cooperation with quality management specialists.

In addition to performance indicators characterizing study process quality, which are summarized in the review, a study programme quality visualization tool has been created in Power BI environment, which will be used to reflect Bachelor and Master study programme performance in an academic year with the help of radar chart. In the chart, study programme results at each study level will be presented comparatively - in relation to the best performance at the respective level. The tool is envisioned for the directors of the study programmes and faculty administration to facilitate collection of transparent information on each study programme performance considering numerous indicators simultaneously, as well as to rank the programme in relation to the best performance. It will be also possible to compare the programme performance in several academic years. The tool is currently at the development and test phase. Performance indicators of 11 study programmes are planned to summarize in the radar chart: academic staff vs. number of students, academic staff with scientific degree, ratio of graduates to the number of matriculated students, number of students who continue studies (not exmatriculated), proportion of foreign students, number of outbound mobility students, Bachelor programme graduates who continue studies at RTU, number of matriculated students from the respective Bachelor study programmes, average assessment of the study programmes in student polls, number of study materials published in ORTUS learning environment and applicability thereof, as well as financial revenue generated by study programmes per student. Comparative reviews of the study programmes results will be available to directors of all RTU study programmes. It is planned to develop and improve the tool for collection of statistical data necessary for evaluation of the study programme performance and data visualization within the framework of SSO 8.2.3 project.

In addition, RTU Study Department summarizes and annually submits until 15 October to the Central Statistical Bureau and the Ministry of Education and Science a statistical review "Review of the University, College at the Beginning of Academic Year 20\_/20\_" (Cabinet Regulations No 812 of 20 December 2016, Appendix 5 (<https://likumi.lv/doc.php?id=287576> (in Latvian))). The Review

contains the following information (sources of information and/or RTU employees responsible for data collection are indicated in parentheses).

- Distribution of students by study programme (Study Management System| Reports | University Review at the Beginning of the Academic Year).
- Enrolment results (University Review at the Beginning of the Academic Year).
- Students having obtained a degree or qualification in the academic year (University Review at the Beginning of the Academic Year).
- Distribution of enrolled students by age (University Review at the Beginning of the Academic Year).
- Distribution of students by age (University Review at the Beginning of the Academic Year).
- Distribution of students having obtained a degree or qualification by age (University Review at the Beginning of the Academic Year).
- University staff in the reporting year as of 1 October (Administrative Office);
- Premise floor area (the Unit of Legal Provision in Real Estate Issues).
- University revenues in the previous year (Planning and Economic Analysis Unit).
- Budget expenditure of the University in the previous year (Planning and Economic Analysis Unit).
- Number of students, who reside in student hostels (Study Organization Unit).
- Number of students by the language of instruction.
- Distribution of enrolled students by place of residence (University Review at the Beginning of the Academic Year).
- Number of mobility students in the total number of students (University Review at the Beginning of the Academic Year; International Cooperation and Foreign Students Department).
- Number of mobility students in the total number of students who have obtained a degree or qualification (University Review at the Beginning of the Academic Year; International Cooperation and Foreign Students Department).
- Own revenue from allocation of the mobility student tuition fees by country in the previous year (International Cooperation and Foreign Students Department).
- Revenue from allocation of foreign financial study grants by country in the previous year (Project Financial Management Unit).
- Revenue from allocation of foreign financial study grants for research by country in the previous year (Project Financial Management Unit).

Summarized statistics on the number of students/graduates is used for the following purposes:

- Improvement of the study direction. For example, if at some study programme the annual number of student dropouts is much higher than the number of graduates who obtained degree/qualification, the causes of such a situation are sought for with scrutiny.
- If at some study programme the number of enrolled students decreases annually, the cause should be identified, and potential programme closure should be considered.
- Allocation of financing (for state budget funded seats).
- Compilation of RTU information materials, press, etc.

**2.5. Description and assessment of the integration of the standards set forth in Part 1 of the ESG. Specify which of the standards are considered a challenge and which require special attention.**

In the context of the study quality assurance policy, one of the challenges to be emphasized is the organization of the RTU working environment so as to motivate the staff and students to realize the mission, vision and goals of the university and to ensure the excellent quality of the University activities. In the context of study programme development and validation, one of the challenges is to reach agreement on the common structure and curriculum of separate sections for the study programmes submitted for licensing. It is promoted by the Study Department, which deals with developing the study programme description template and completing the sections applicable to the RTU in general. In the context of student-centred learning, teaching and assessment, perceiving the development of curriculum and study forms as one of the most significant challenges of today's higher education, RTU has established the Centre of Academic Excellence, which acts as a bridge between teaching and learning cultures. The challenge lies in a relatively low activity of local students in using exchange programmes for studies abroad. To compensate for it RTU promotes international opportunities by inviting guest lecturers and conducting study courses with foreign students. In the context of information management, it is considered how the data on employment of graduates from the State Revenue Service could be linked to specific study programmes. In addition, in this context, the question of choosing the most appropriate method for mapping study programmes is evaluated taking into account the great variety of RTU study programmes. Active professional development of the academic staff is also taking place within SSO 8.2.2 project "Strengthening the academic staff of Riga Technical University in the areas of strategic specialization"

The description of the integration of the standards included in the first part of the ESG is given in the appendix "Integration description of the first part of the ESG standards".

## **II - Description of the Study Direction (3. Resources and Provision of the Study Direction)**

**3.1. Provide information on the system developed by the higher education institution/college for determining the financial resources required for the implementation of the study direction and the relevant study programmes. Provide data on the available funding for the relevant study programmes, as well as the sources of the funding for the scientific research and/or artistic creation activities and their use for the development of the study direction. Provide information on the costs per one student (for each relevant study programme of the study direction) by specifying the headings indicated in the calculation of costs and the percentage of the funding among the indicated headings.**

According to the Conceptual Report "Introduction of a New Higher Education Financing Model in Latvia" approved by the Cabinet of Ministers on June 29, 2015 (<http://likumi.lv/ta/id/274944-par-jauna-augstakas-izglitiba-finansesanas-modela-ieviesanu-latvija> (information available only in Latvian)), Latvia has introduced structural reforms in the sector to ensure the development of an efficient and sustainable higher educational system. A three-pillar funding model has been introduced to reconcile the supply offered by higher education with the needs of Latvia's economic development and labour market, high-quality research-based higher education content and performance management in higher education institutions. The base funding for provision of the study process is the 1st pillar, performance funding is the 2nd pillar, and development funding is the 3rd pillar.

The first pillar, or base (base funding), is implemented through state budget funded study places. Determination of the number of state budget funded study places is regulated by Sections 51 and 52 of the Law on Higher Education Institutions (<https://likumi.lv/ta/en/en/id/37967> information available partly in English).

RTU funding from the basic state budget is made up of the study base financing corresponding to the list of study programmes and the number of students; it is used to cover such expenses as utilities, taxes, infrastructure maintenance (including data for the Student and Graduate Register), purchase of equipment and supplies, staff remuneration, and funding for research activities.

The number of study places is allocated after discussions with the Ministry of Education and Science. Funding from the state budget is allocated for full-time studies.

The amount of study base funding is determined on the basis of the number of study places determined by the state at RTU, as well as the state-defined study place basic expenses and study cost coefficients in the thematic areas of education.

Study cost coefficients for thematic areas of education are indicators that determine the amount of study place costs in the respective thematic area of education in relation to the basic costs of the study place.

The cost coefficients for the study programmes in the thematic areas of education for Bachelor and professional study programmes are set by Cabinet Regulations of December 12, 2006 "Procedures for Financing Institutions of Higher Education and Colleges from the Funds of the State Budget" (<https://likumi.lv/doc.php?id=149900> information available only in Latvian) (the "Regulations") in Annex 1.

Values of study cost coefficients are 1.5 times higher for Master study programmes and three times higher for Doctoral programmes than the study cost coefficients specified in Annex 1 to the Regulations for the respective thematic area of education.

The amount of the study funding granted to the institution of higher education or college from the state budget for the implementation of Bachelor, professional and Master study programmes is calculated using the following formula:

$F_s = T_b \times [S(k_i \times n_i) + 1,5 \times S(k_i \times m_i)] + S_b \times S(n_i + m_i)$ , where

$F_s$  - amount of study financing;

$T_b$  - basic costs of the study place;

$k_i$  - coefficient of the study costs in the relevant field of education (Annex 1 to the

Regulations);

$n_i$  - the number of study places for a higher education institution or college at undergraduate and professional study programs in the relevant thematic area of education;

$m_i$  - the number of study places at the Master study programs in the relevant thematic area of education;

$S_b$  - study place social security expenses at undergraduate, professional and Master study programs (Annex 2 to the Regulations).

The basic costs of a study place and the social security expenses of a study place are determined in accordance with Appendix 2 to the Regulations.

Each year, the Ministry of Education and Science calculates the basic costs of a study place for the following budget year and, by November 1 of the current year, coordinates the calculations with the Ministry of Finance and those Ministries which have higher educational institutions and colleges subordinated to them.

RTU funding from the state basic budget for the provision of study places in the respective academic year is distributed in accordance with the decision of RTU Senate "Methodology for Allocation and Application of Basic Budget, Performance-Based Funding and Tuition Fees to RTU Units" (see the file of Appendix 16 of the list of Internal regulations; hereinafter - the Methodology). The Methodology is reviewed and revised every year and is subjected to any necessary changes.

As the study direction "Management and Administration, Real Estate Management" is implemented at the Faculty of Engineering Economics and Management, the issue of financial provision of studies and respective study programmes is considered in the context of the Faculty, which also implements the study programs of three other study directions.

The FEEM consists of five institutes with their subordinate departments and several independent organizational units: the Unit of International Programs responsible for the implementation of the study programme "Innovations and Entrepreneurship" and BALTECH Study Centre.

RTU has a decentralized budget, and each organizational unit is allocated a separate budget. In a general sense, a budget is a plan of revenues and expenditures for a specific period of time, work, event or function. The revenues and expenditures of RTU shall be administered in accordance with principles approved by the Senate or as stipulated by the Vice-Rector for Finance.

Revenues can be divided into those allocated to the organizational unit for carrying out certain tasks for which it is responsible, such as consultancy, organization of training; and those allocated



to the organizational unit as a result of calculations based on the envisaged workload (e.g., funding for the implementation of the study course "Innovative Product Development and Entrepreneurship" at different study programmes or funding for the administration and development of the study programme) and/or indicators achieved in previous periods (e.g., research support).

According to the Budget Allocation Methodology, the financing is allocated to the organizational units either according to the financial or budget year or immediately after receiving the financing. The financial or budget year of RTU organizational units is from October to September of the following year, and for this period the financing is calculated and distributed:

- Subsidy or basic budget funding (training of state budget funded students) is divided into monthly limit - 1/12 of the estimated annual funding per month is allocated to the organizational unit;
- Tuition fee funding (training of tuition fee-paying students, including funding paid by students for settling academic arrears) is allocated twice a year (in October and April) as a monthly limit - 1/6 of the estimated funding per semester is allocated to the unit monthly;
- Performance funding (research support funding) is allocated as a monthly limit - 1/12 of the estimated annual funding is allocated to the unit per month;
- Research base funding (research support funding) is allocated as a monthly limit - 1/12 of the estimated annual funding is allocated to the unit per month;
- Foreign student tuition fee funding is allocated several times a year, taking into account that most of the funding for the envisaged workload is allocated to the organizational unit at the beginning of the semester - it is planned in the forthcoming periods, by adjusting the allocation process with the allocation of tuition fee funding to facilitate the unit's operation during the budget planning process.

Each head of RTU organizational unit is provided with remote access to operational financial information on the unit's budget, including the envisaged workload and correspondingly allocated funding for the implementation of study programmes and study courses in subsequent periods. Based on this information, the head of the organizational unit plans the work of the unit at the beginning of each financial or budget year, including remuneration issues for academic staff members who are subordinate to the head of the unit, and develops a procurement plan for the following year in compliance with the implementation and development of the study programme or study course, etc.

According to the World Bank research on higher education governance in Latvia, which was conducted in 2017 and 2018, the World Bank concluded that RTU used the opportunities offered by the system-level funding model reform to gradually adjust the internal distribution of decision-making powers by strengthening the position of deans. Prior to the introduction of the second pillar of the state funding model, RTU funding was provided to units below the level of faculties. To address the issue of weak positions of deans, more than half of the new 2nd pillar performance income is used to provide funds to faculties where the dean is the budget holder. First, it opens up new opportunities for faculty-level strategic development. Second, deans now have greater opportunities to ensure the development of faculties, which is their responsibility.

In academic year 2019/2020, RTU intends to make changes in the Methodology in order to ensure that the basic state budget funding for the provision of study places is distributed by study programmes and thematic study directions courses, ensuring even more precise distribution of funding according to the indicators by which RTU receives the state budget funding. In addition to the places financed by the state basic budget, the study programme financing also consists of tuition fee revenue, which can be divided into two subgroups:

1. revenue from local fee-paying students;
2. revenue from foreign fee-paying students.

Funding from local fee-paying students is allocated in compliance with the Methodology where, in order to provide greater opportunities for the development of fee-based study programmes, for several academic years, a significant amount of the funding received has been channelled to the Head of study programme, who may appropriately use this funding to renew facilities and attract higher level specialists for the implementation of the study process, etc.

Funding from foreign fee-paying students in a respective academic year is allocated in accordance with the Resolution of RTU Senate On Approval of the "Methodology for Allocation of Funds for Study Process Provision at the International Cooperation and Foreign Students Department" in the Respective Academic Year (see the file of Appendix 41 of the list of Internal regulations; hereinafter - Methodology2). Methodology2 is revised and approved every year taking into account necessary changes.

In academic year 2019/2020, RTU made significant changes to Methodology2 with an aim to bring it closer to the Methodology governing budget allocation, thus facilitating the work process of the persons responsible for the implementation of the study programmes - both by aligning funding allocation periods and principles.

Analysing the financing procedure of the study programmes and the study directions at RTU as a whole, it can be seen that the state basic budget and local fee-paying student funding in the long run are determined taking into account the basic principles established by the state. In the process of determining the amount of funding, the study cost coefficients of the thematic areas of studies and the values of the study cost coefficients according to the level of the study programme, as well as the number of students at the study programme and the study courses implemented therein are taken into account. As mentioned above, by using study cost coefficients of the thematic areas of studies, it is possible to determine the amount of financing required for the implementation of a particular study programme and study course. In the Methodology for academic year 2018/2019, RTU Senate approved that in the future the study cost coefficients of the thematic areas of studies would be applied individually to each study course of the study programme, thus ensuring even more appropriate amount of financing for the implementation of study courses included in the study programmes. In order to implement this system, the Expert Committee was established by order of the Vice-Rector for Academic Affairs, who determined thematic areas of studies for each study course. RTU has the following thematic areas of studies and the applicable coefficients:

<b>Thematic area of study courses of RTU</b>	<b>RTU coefficient</b>
Architecture and urban planning	3.5
Aviation transport	4.2
Construction	2.9
Civil engineering and real estate management	1.71
Civil and occupational safety	2.9
Civil defence	4.2

Computing	2.9
Computer training	2.42
Economics	1.4
Electronics and telecommunications	2.9
Power and electrical engineering	2.9
Physics	3.2
Geodetics and cartography, geomatics	2.9
Innovation	2.9
Engineering drawing	2.9
Quality management	2.9
Chemistry and chemical technology	3.2
Applied arts and design	3.5
Mathematics and statistics	2.42
Material sciences	3.2
Medical engineering	2.9
Mechanics, mechanical engineering, construction of machines and mechanisms	2.9
Customs and taxes	2.9
Pedagogy	1.67
Heat engineering, heat, gas and water technology	2.9
Social sciences	1.4
Sports	2.0
Textile technology	2.9
Law	1.4
Transport	2.9
Management and administration	1.4

Languages	3.2
History and philosophy	1.4
Environmental engineering and management	3.2
Logistics	1.8

In academic year 2019/2020, it is envisaged to incorporate similar principles in Methodology2 and apply them to study programmes, where the total number of foreign students in all academic years is greater than or equal to 90. The study programmes with less than 90 foreign students have a support mechanism, which envisages financing from the total funding of the foreign students, in order to ensure an adequate amount of funding for the implementation of the study courses of the study programmes.

In order to ensure the functioning and sustainable development of study programmes, RTU has been improving the Methodology and Methodology2 for each academic year in accordance with changes in the external and internal environment, thus also eliminating possible risks in the implementation process of the study programme or its study courses. The transition process involves all stakeholders, thus ensuring transparency, as well as a transparent decision-making process. The required changes are at first initiated by RTU Vice-Rector for Finance, and additional changes can be initiated by any RTU employee by submitting a request to RTU Vice-Rector for Finance or to the Finance and Budget Committee of RTU Senate. The Finance and Budget Committee of RTU Senate consists of 21 senators (deans, heads of organizational units of faculties, professors, as well as student representatives) who have voting rights, as well as nine RTU Senate advisors, who are mainly representatives of various administrative units, such as vice-rectors, heads of departments etc. Once the Finance and Budget Committee of RTU Senate has considered and evaluated the proposals, it shall propose amendments to the Methodology or Methodology2 or develop a new version of the document(s) for the next academic year for approval by the RTU Senate (50 senators). It should be noted that historically changes in the Methodology or Methodology2 have been proposed after performing a thorough analysis, including mitigation of their possible negative impact on the implementation of study programme courses, for example, Methodology2 stipulates that the financing for a study course may not be less than 90 % of the amount allocated for the implementation of a study course of the same volume in the previous academic year.

Research base funding (base funding provided by the state) is allocated among faculties according to the performance-based output indicators, i.e., number of publications (weighted by impact and citation), money attracted by research projects and industry contracts, and defended Doctoral Theses (considering also the time it takes to complete Doctoral studies). The calculation is made based on the transparent methodology, which was approved by the Scientific Council (the document: "Methodology for Allocation of Research Base Funding to RTU Organizational Units") on 20 November 2018. A decision regarding allocation of the budget among faculty institutes is made within faculties (by the Faculty Councils).

RTU also makes 3 project calls a year with internal funding. The 1st project call aims at supporting publication activities of young scientists. The 2nd call supports projects where RTU cooperates with industry partners, and this call is aimed at promoting inter-faculty and inter-disciplinary research within six research platforms of RTU. The goal of the 3rd call is to involve graduates in the research process. The regulation documents are usually approved by the Scientific Council of RTU. However, the decisions regarding selection of particular researchers or projects are made by expert groups

organized by the Office of Vice-Rector for Research, on the faculty level or the research platform level (Council of Coordinators of Research Platforms; decision of RTU Senate No. 600 "On Approval of the Regulation of Coordinators' Board of the Research Platform at Riga Technical University" as of 23 May 2016. Projects are administered by the Office of Vice-Rector for Research. The Office also coordinates administration of the externally funded research projects, e.g., within Horizon 2020 programme and other. Research projects funded by the EU Structural Funds are administered by the Office of Vice-Rector for Strategic Development.

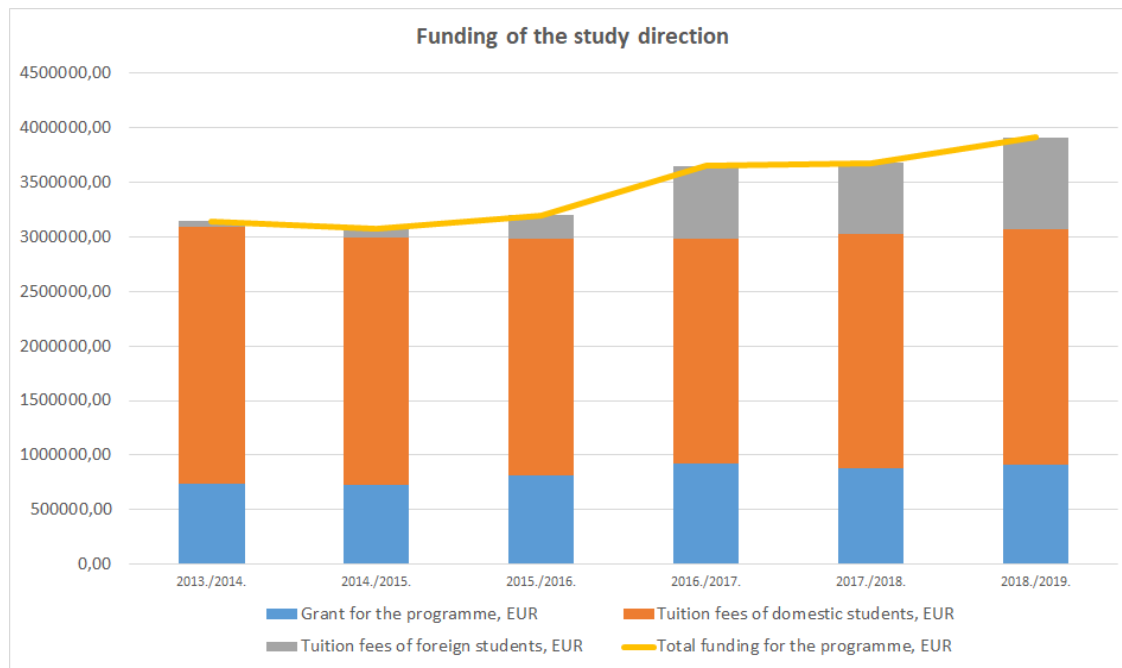
The Internal Research Excellence Grant for young scientists is a new initiative, with an aim to attract talented young researchers to RTU and provide with funding, which allows establishing new research groups in a prospective research field. Funding for a 3-year period is based on international competition under conditions similar to EC ERC grant, and international call and evaluation performed by external, i.e., foreign well-recognized researchers. The final decision for awarding the grant is made by the Scientific Council of RTU.

RTU Research Support Fund (decision of RTU Senate No. 585 "RTU Regulation of Research Support Fund" as of 15 December 2014) aims at providing financial support for various research related activities, such as support for maintenance of research equipment, protection and licensing of intellectual property, covering of expenses related to the Doctoral study process, publishing of scientific journals, participation and organization of scientific conferences, support to researchers in establishing new laboratories in a prospective research field. The Research Support Fund is an instrument to support research activities, which foster the development of the strategically important research fields. 10 % of the research base funding (state budget funding) is allocated to the Research Support Fund every year. Establishment of five new laboratories or centres has already been supported by the Fund by June 2019, e.g., RTU High Energy Particle Physics and Accelerator Technology Center (for cooperation with CERN), Biochip Laboratory, Scientific Laboratory of Experimental Mechanics of Materials, Scientific Laboratory of Electromechatronics, Research Center of Communication System Technologies.

The financing of FEEM has been stable in recent years, even with a tendency to increase. Taking into account the increasing workload with foreign students, financing of the FEEM study process (basic budget, tuition fee, performance and foreign tuition fee funding) in financial year 2018/2019 reached almost 2.8 million EUR, i.e., an increase of 8 % or almost 0.25 million EUR.

Since the beginning of financial year 2018/2019, in addition to information on the budget of each subordinate unit, the heads of the FEEM organizational units are provided with a regularly updated overview of the overall financial results of the faculty study process, thus the objective information on performance is made available not only to the Dean but also to the Heads of institutes, departments and other organizational units. The provision of such a report ensures not only transparency of information, but also an opportunity for the FEEM Dean and Council to react promptly in situations where it is necessary, for example, to review individual expenditure items within the framework of joint financing.

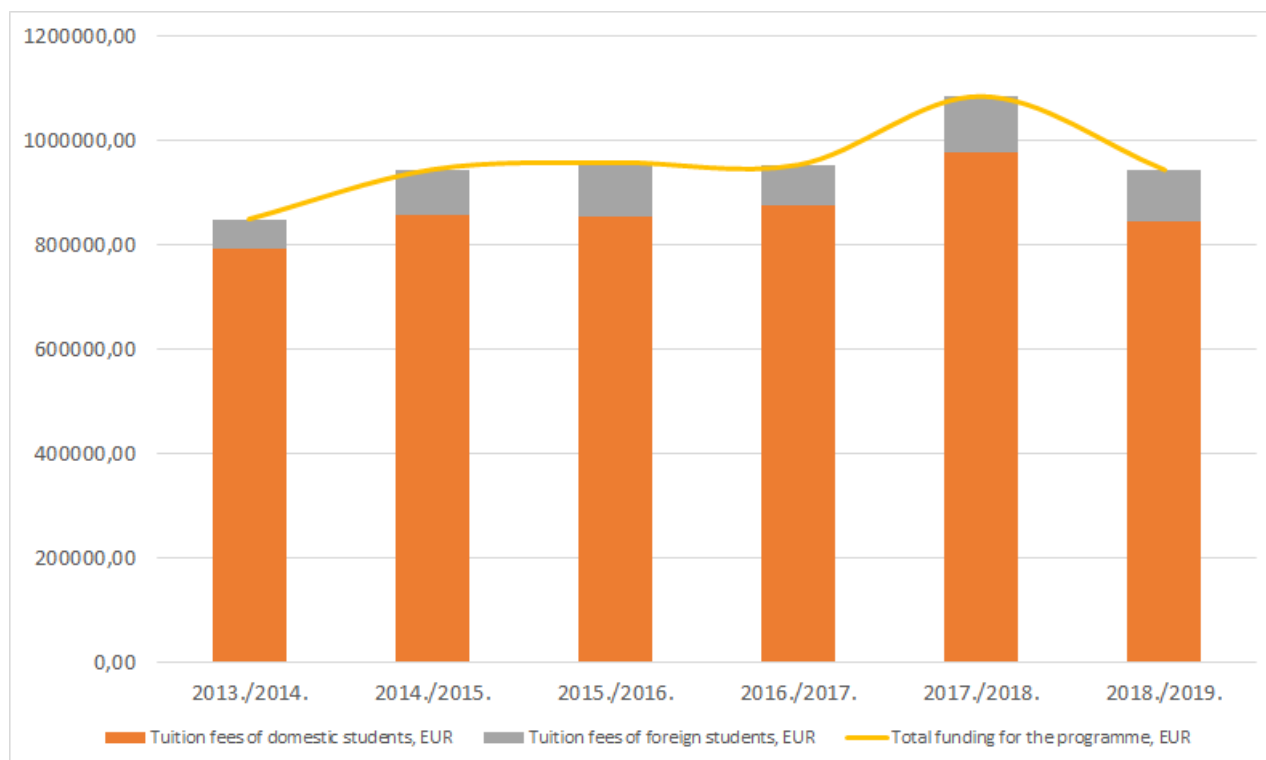
The total funding of the study direction in the reporting period amounts to EUR 20,666,160, of which tuition fee revenues constitute EUR 13,133,843.15, while the state budget grant constitutes EUR 5,004,203.89 (see Figure Total revenues of the study direction "Management and Administration, Real Estate Management" from academic year 2013/2014 to academic year 2018/2019).



**Figure:** Total revenues of the study direction “Management and Administration, Real Estate Management” from academic year 2013/2014 to academic year 2018/2019

The total funding in academic year 2018/2019 has increased by 6.3% (EUR 232,206.55) compared to the previous academic year 2017/2018, which is explained by the increase in the number of foreign students in programmes of the study direction. The most rapid increase in tuition fees of foreign students (by 14% or EUR 449,236.96) compared to the previous academic year was observed in academic year 2016/2017.

Operations of RBS as a permanent RTU institute, which does not belong to any of the faculties, are funded based on a specially created model in accordance with the procedure approved by the RTU Senate. The funding of the implementation of study process at RBS is not allocated as 1/6 of the calculated semester funding, it is allocated as soon as it is received, if the funding is identifiable or a proper tuition fee invoice has been issued. The RBS funding consists of tuition fees paid by students. In the reporting period from 2013/2014 to 2018/2019 the revenues from Latvian students amounted to EUR 5,205,546.37, while revenues from foreign students amounted to EUR 531,619.50. The total RBS revenues in the reporting period amounted to EUR 5,737,165.87.



**Figure:** Total RBS revenues in the reporting period

A special financing model has been created for the academic Bachelor's study programme "Creative Industries" implemented jointly by RTU FEEM and the Latvian Academy of Culture (LAC). For this study programme, at the beginning of each academic year RTU and LAC conclude an agreement on the planned number of budget students in each years of studies and study courses, where the amount of work to be performed by RTU and LAC and therefore the amount of funding due to each of the parties is determined taking into account the state budget funding for the implementation of the study programme in the respective academic year. The funding paid by tuition fee students is broken down in proportion to the number of CPs implemented by each higher education institution in the respective academic year.

*(in addition, see the description of each study programme in Section III of the report)*

### 3.2. Provide information on the infrastructure and the material and technical provision required for the implementation of the study direction and the relevant study programmes. Specify whether the required provision is available to the higher education institution/ college, availability to the students, and the teaching staff (the specific equipment required for the relevant study programme shall be indicated in Part III, Chapter 3 below the respective study programme).

The construction of RTU Ķīpsala campus began in 1965 with the aim to create a unified study and research centre. The construction process is underway and it is envisaged to host the majority of university students in Ķīpsala by 2021. After completion of the construction, RTU Ķīpsala campus will become the most modern engineering study centre in the Baltic States.

The issue of sustainable development is taken into account in the construction process of the campus. Recognizing its concern for sustainable development and demonstrating its willingness to engage in the promotion of sustainable development, RTU has joined the Sustainable Development

Solutions Network, which seeks to achieve the 17 UN Sustainable Development Goals (SDGs) by 2030. RTU is currently the only organization in the Baltic States that has been admitted to the network.

Through its networking activities, RTU, as a higher education and research institution, has prioritized the achievement of seven UN SDGs that coincide with RTU research platforms. RTU considers the provision of quality education and the promotion of lifelong learning to be its primary goal. RTU also intends to contribute to research and innovation in sustainable and modern water technologies, power systems, infrastructure and urban environment. The University is also committed to promoting the creation and distribution of sustainable products.

RTU buildings are equipped with state-of-the-art climate control equipment, technical solutions that are remotely controlled and provide the opportunity to track energy consumption to make buildings more comfortable for students, academic staff, researchers and guests. One of the results achieved in the development of RTU infrastructure is the participation in the GreenMetric Ranking, which recognizes RTU Ķīpsala campus as the 59th greenest campus in the world and RTU – as the 129th greenest university in the world (<http://greenmetric.ui.ac.id/detailranking2018/?univ=rtu.lv>). In the Baltic region, RTU is a leader in terms of green thinking infrastructure.

The infrastructure of Ķīpsala campus provides students, staff and guests with all the necessary services and utilities, e.g., it is possible to park a bicycle and a car, quench one's thirst at water drinking points. Developing the infrastructure, care is taken of all groups of people, including people with disabilities: each building has parking lots, easy access to classrooms, laboratories and other facilities, the use of Braille to provide essential information, as well as all sanitary facilities are designed according to the requirements. The association of people with disabilities and their friends APEIRONS (<https://www.apeirons.lv/>) commends RTU for its achievements in infrastructure related issues for people with disabilities.

In RTU Ķīpsala campus, there are currently 54 classrooms, 187 laboratories, 19 special training rooms, 10 computer classrooms, 12 workshops and several research centres of national importance. The campus also houses a hostel with 950 beds and a special area for people with disabilities.

Foreign students, visiting lecturers and university guests can use the renovated RTU dormitory (Āzenes 22a, Riga).

The Faculty of Engineering Economics and Management is located at 6 Kalnciema Street, Riga. The FEEM has a well-developed infrastructure with easy access to public transport stops, cafes, shops and a sports centre.

The total area of the building is 6627 m<sup>2</sup> with five floors and a basement. Bicycle parking and over 50 parking lots are also available. People with disabilities have physical access to the FEEM. Landscaped area with paved driveways and pedestrian sidewalks, lawn, and benches ensures a cosy atmosphere.

On each floor of the FEEM building, there are amenities and a specialized water dispenser. There are also a lift, an open wardrobe, a reading room, several lounges, student study rooms, classrooms and instructors' offices, meeting rooms, the Museum of Customs and Tax History, as well as a cafe.

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### **Educational building at Kalnciema Street 6**

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<b>No.</b>	<b>Type of use of the room</b>	<b>Number</b>
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1	Auditorium	30
2	Laboratory	5
3	Dean's office	2
4	Office	33
5	Academic staff – consultation room	29
6	Methodological room	2
7	Student Parliament room	1
8	Meeting room	1
9	Museum of Customs	1
10	FEEM Museum of History	1
11	Canteen	1
12	Auxiliary rooms, bathrooms, warehouses, cloakroom	27
<b>Total:</b>		<b>133</b>

Owing to a high level of digitalization, the available infrastructure and material and technical facilities for the implementation of the study direction and corresponding study programs provide an opportunity to increase the University's competitiveness, improve operational quality and efficiency, as well as to make information available by integrating IT solutions into administrative, academic and research processes of the University and providing administrative and academic staff with modern, reliable, secure and unified IT infrastructure and quality IT services.

The IT Department of the Administrative Service works in three areas:

1. Creation, development and maintenance of an integrated information system of RTU providing support for administrative, academic and research work of RTU;
2. Provision of high-quality and uninterrupted voice and data communication services throughout the territory under the control of RTU, as well as maintenance of RTU data centres and key network resources;
3. IT service support, incl. providing information on new IT solutions, giving necessary consultation and organizing IT training.

To ensure easy and efficient identification of IT users, an IT user identity management system has been introduced; as a result, each IT user has a unique electronic identity that is valid in all information systems. In addition to the aforementioned, a user session management system is ensured in IT systems, which means that there is no need for IT users to re-authenticate when logging in to RTU information systems. It gives the experience of using a unified integrated information system without having to memorize different identification data and re-enter them, implementing different IT application scenarios.

All IT users are provided access to the centralized portal ORTUS (<https://ortus.rtu.lv> – screenshots

of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”), which functions as a single digital gateway, combining information from all RTU information system components and providing users with an easy-to-use way of accessing the directory of all IT services in one place.

The Centralized Study Management System is used for efficient administration of the study process, which ensures digital provision of the study life cycle, incl. Electronic Register of Study Programmes (its public part is available at <https://stud.rtu.lv/rtu/vaaApp/sprpub> – screenshots of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”), drawing up learning agreements and enrolment of students in study programs, Register of Study Courses (its public part is available at <https://info.rtu.lv/rtupub/disc2/list> – screenshots of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”), designing student’s individual study plans, drawing up orders, implementing study courses and study process, registering grades, recognizing study courses, awarding qualifications, administering payments, hostel information, gathering information to issue diploma supplements, etc. This system is one of the main cornerstones in the administration of RTU study process.

To ensure effective implementation of the study process, Moodle e-learning environment is used, where all relevant information is compiled in an automated way (study courses, users, groups, access rights, etc.). This system ensures student-instructor communication. The academic staff members place various electronic materials, assessment tests, homework assignments, information on a particular study course, etc. in the system. Students can also view their financial information on the ORTUS portal, as well as make request for documents (references, transcripts of records, copies of a learning agreement, etc.).

Since 2007, more than 120,000 unique study course sites have been generated in the e-learning environment of RTU. Students can access electronic learning resources anytime and anywhere.

Digitization of classrooms and schedules has been carried out to ensure efficient premises management and study planning (<https://telpas.rtu.lv>; <https://nodarbibas.rtu.lv/> – screenshots of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”). Each RTU student and academic staff member can access their schedule, which provides information on the venue, time, instructor, room, title and type of lecture. In addition, for user’s convenience purposes, the system greatly facilitates lecture planning and scheduling, as well as optimizes the use and efficiency of premises.

Electronic Staff Management and Record-keeping Systems, which cover the circulation of record-keeping and personnel documents at RTU (<https://docs.rtu.lv/> – screenshots of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”), are also used to ensure the efficient administrative work. Electronic document coordination and document e-signing functionality have been introduced, thus reducing print-based document circulation and significantly increasing document circulation speed. Since autumn semester 2019, students have been provided with electronically signed learning agreements. Since 2016, RTU graduates have been receiving electronically signed transcripts of records.

In terms of quality assurance, a digital student survey system is used, with the help of which the quality control of study courses and study programs is implemented each semester. Based on the results of quality control, regular measures are taken to improve study programs and the study process, in general.

For additional convenience of RTU students, academic and general staff members, RTU leases Microsoft Windows and Microsoft Office software, which provides all IT users with access to the latest Microsoft software. RTU students can use the licensed Windows operating system and the

Microsoft Office productivity suite provided by RTU for study needs. All IT users have access to Microsoft Office 365 cloud computing platform with one terabyte of storage space available to each user and access to a variety of additional collaboration and productivity tools (Microsoft Teams, SharePoint Online, Forms, OneNote, OneDrive, Outlook, etc.). RTU students, academic and general staff have access to the University's email system.

To support research activities, RTU has developed the Centralized Research Support System, which records all information on publications, patents, commercialization applications, Doctoral Theses, RTU scientific journals, research staff, etc. The system provides access to information according to OpenAccess principle (<https://science.rtu.lv> – screenshots of the interface are attached in “RTU IT sistēmu saskarnes / Screenshots of RTU IT systems”). RTU students and academic staff also have centralized access to research software.

RTU has the high-speed fibre optic Internet and extensive wireless network infrastructure with over 400 access points, including the international Euroam service. In addition, desk phones and mobile communications are provided for fast and easy communication.

To ensure a stable and secure operation of the information technology infrastructure, continuous monitoring of the IT infrastructure and systems is performed, resulting in proactive incident control. Data backup is also ensured.

The Information Systems Security Policy has been developed and implemented with the primary goal of ensuring the secure use of RTU information systems by establishing and maintaining a sufficient set of measures to reduce or prevent potential or resulting harm. Implementation of the Information Systems Security Policy envisages security checks, data transmission network monitoring, as well as preventive measures. Regular IT security and personal data protection training is organized for IT users. Automated security incident management and risk management have been implemented. Statistics demonstrate that the number of IT security incidents dropped significantly over the last five years.

The IT User Support Center provides IT user support, by applying a one-stop approach to process applications based on ITIL guidelines. Since 2007, the IT User Support Center has processed and resolved more than 150,000 IT user applications.

The implementation of the study direction is related to the material and technical provisions and infrastructure of RTU, FEEM and RBS. The study process and scientific activities of the study direction “Management and Administration, Real Estate Management” take place in RTU buildings in Riga: Kalnciema Street 6, Skolas Street 11, Kaļķu Street 1 and in the entire RTU Kipsala campus, which includes a library, a sports centre and other infrastructure elements that are described above.

The RTU Faculty of Engineering Economics and Management at Kalnciema Street 6, constantly sees that the rooms and their technical equipment meet quality requirements, relevant auditoriums with necessary multimedia equipment have been created (see Table Material and technical provisions for the implementation of the study direction).

Material and technical provisions for the implementation of the study direction

<b>Devices</b>	<b>FEEM, Kalnciema Street 6</b>	<b>RBS, Skolas Street</b>
Laptops and tablets	66	9

PCs	128	49
Monitors	125	57
Copiers, including scanners	12	3
Projectors	38	5
Printers	35	10
Portable data terminal with a printer for stickers	2	1
Television sets	2	2

RBS premises in Riga, at Skolas Street 11, equipped with modern technical teaching aids. A large auditorium for up to 98 people, three medium-sized auditoriums for up to 57 people, nine small auditoriums for 12-35 people are available for the needs of the study process. The auditoriums are equipped with PCs for the speaker, multimedia projectors, audio and video equipment and other presentation equipment. The building has a WiFi network. One of auditoriums is equipped with an automatic lecture recording system. This technical equipment fully meets the requirements set for a modern auditorium and meets the best Latvian and foreign equivalents of such audiences. There is a specialised library and a computer laboratory for the needs of students. RBS organises remote lectures for the implementation of study programmes using Zoom videocapture created based on the original software for base conferences.

Equipment of auditoriums is improved and cosmetic repairs in auditoriums and halls are performed every year to ensure the study process. Since September 2019, four large auditoriums at Kalnciema Street 6 have been equipped with *HP Shareboard* digital cameras allowing to capture and save in a digital format everything written on a whiteboard during lectures. All the saved materials may later be available and used by students in a digital way in the RTU e-study environment ORTUS.

In 2018, multimedia equipment in all study audiences was renewed by replacing projectors with newer models. In 2019, computers were replaced with newer models in all study auditoriums, as well as 19 new computers for the FEEM computer room were purchased allowing to use the latest versions of software available in the study process.

Workplaces of teaching staff are equipped with modern PCs and laptops, as well as printing, copying and scanning devices.

Following the latest trends with regard to wider use of mobile or portable devices in the study process, the wireless network coverage is improved and extended. In 2020, there are plans to install additional wireless network access points by improving the coverage, and to increase the data transmission speed in the network.

Each RTU student and employee has access to the Office365 platform with an opportunity to use web versions of Word, PowerPoint, Excel, OneNote and Outlook, a personal cloud storage, as well as other opportunities provided by the platform free of charge.

RTU FEEM has created a “study stimulation” room in auditorium 119 or a “**Study Room**” for students of the faculty. The room is equipped in such a way to enable students to work in teams,

there is a shared computer and a projector.

In academic year 2018/2019, an **Open Learning Space** was created on the basement floor at Kalnciema Street 6 in order to ensure more active use of stocks of the methodological room and to better familiarise students with the methodological materials prepared by teaching staff of the faculty.

In January 2018, a FEEM IBEM **Creative Lab** functioning in faculty premises at Kalnciema 6, room 417, was created for students, academic staff and employees to provide support in the study process, research and creative work, development of designs for new products and services and prototyping at the faculty (see Paragraph 4.5). The lab provides students with different tools, a 3D printer, materials, workplaces allowing to transform own idea into a product prototype or create prototype templates or initial versions which can further be developed at the RTU Design Factory at Kipsala. The lab is supplemented with additional tools based on wishes of students. 3-4 teams (up to 5 people each) can work in the lab at the same time. The main aims of creation of the Creative Lab:

- to get involved in the study process to arouse interest in students in work in a lab, to support scientific activity, research and innovation;
- to provide students with initial product designing and prototyping opportunities and preparation for further work in the RTU Design Factory;
- to establish and maintain close cooperation with the RTU Design Factory by introducing a uniform lab operation model;
- to support local, national and international research projects;
- to provide consultation and mentoring in the field of product and service design development and improvement, design process methodology, prototyping and testing;
- to cooperate with RTU organisational units, the RTU Design Factory, Latvian and foreign universities and scientific institutes to work together on different projects;
- to organise seminars, lectures and other educational or interdisciplinary events;
- to promote development of different forms of business;
- to cooperate with companies national and regional regulatory authorities and business incubators;
- to attract funds by performing research and study projects, as well as to provide consultations or technical provisions for the performance of works within RTU projects.

The RTU Design Factory has been ensuring the implementation of the study subject “New Product Design and Development”, secures prototyping of business ideas of students thus fostering cooperation between the university and businesses for four years. Along with the establishment of the RTU DF the academic staff of FEEM got involved in technology transfer and idea commercialisation processes at university scale.

An **Innovative Economic Research Centre** has been created within the RTU FEEM Institute of Business Engineering and Management to ensure different research in the field of innovation, technology transfer, business, finances, etc. Scientific and other research is conducted by students and academic staff. The centre implements scientific research projects, for example, “SME coaching: 5-POINT training programme” (<https://www.rtu.lv/lv/ievf/zinatne-ievf/projekti-1/starptautiskie-projekti-1/erasmus-1>) in 2014-2016. The centre conducts various research for the needs of the industry.

In order to increase the quality of scientific and research works and competitiveness of RTU students and researchers in the labour market, a “**Bloomberg**” laboratory was equipped at Kalnciema Street in auditorium 402 in January 2019. The “**Bloomberg**” laboratory provides students and researchers access to extensive real-time databases, research and analysis tools. The database

is very extensive. It includes all the global financial data, data about companies, securities, transactions, marketing events, real estate and other taxes and much more. There are **12 special terminals** at the laboratory, which are available to all RTU students and researchers. It was equipped by improving the RTU study environment within the European Union specific support objective 8.1.1 project “Development of infrastructure of the Riga Technical University to modernise **STEM** study programmes”. The general aim of the project is to increase the number of modernised **STEM** (Science, Technology, Engineering and Mathematics) study programmes, including medical and creative industries. By implementing it, RTU continues the establishment of the most state-of-the-art engineering study centre in the Baltic region.

An ICEREE **Civil Engineering and Real Estate Scientific Research Laboratory** was created at Kalnciema Street 6 within the scope of the Energy and Environmental Resource Extraction and Sustainable Use Technology Research Centre of National Importance - **EVRIIT VNPC** (including also the development of a Transport and Mechanical Engineering Subcentre) fostering higher-level research in the fields of energy, environment, transport and mechanical engineering at European and international level, modernising and improving the infrastructure of research institutions, purchasing modern scientific equipment and devices, including renovation and construction of new buildings to provide the necessary conditions. Students can use lab equipment and software in different study courses, for example, Real Estate Visual Environment Planning, Computerised Project Management, Management of Construction Projects etc. RTU FEEM ICEREE in cooperation with the RTU Competence Centre for Construction Business and Property Assessment, Deals and Management organised a programme of professional improvement courses “Property Assessment” of 360 h for industry specialists and academic staff of the institute to improve their professional qualification.

The IBCI has created the RTU **Business Logistics Research and Training Centre** providing qualified practical assistance in the field of business logistics and problem solving (for example, product delivery time, delivery accuracy, stock requirements, optimisation of stock procurement, storage costs, storage and transportation of goods at local and international level, etc.) for companies, organisations and RTU graduates. One of the tasks of the centre is to train and upskill the specialists involved in logistics processes in accordance with the rules of certification of the European Logistics Association (ELA). Every year the RTU FEEM IBCI Business Logistics Research and Training Centre organises courses on management of logistics processes and organisation of forwarding services. The courses are intended for forwarding agents, employees of customs warehouses, employees and managers of logistics organisational units, as well as other interested persons. They were attended by 25 persons, who received an RTU Certificate about the mastered continuing education course.

An IPQ **Quality Improvement, Research and Training Centre** has been created to provide consultations and research in the field of compliance assessment and improvement of quality of processes, products and systems, where quality specialists can improve their qualification, students are involved in research, participate in project design and implementation, companies get advice on quality improvement matters, seminars are held, and consultations to solve problems related to inappropriate quality are provided.

A **Customs Control Laboratory** was opened at RTU FEEM in April 2019 to strengthen practical skills of students in customs control and to better prepare them for labour market requirements. The Customs Control Laboratory was created at the Department of Customs and Taxes of the Institute of International Business and Customs (IIBC) of the RTU Faculty of Engineering Economics and Management with support of the Customs Board of the State Revenue Service. The laboratory allows students to obtain and improve practical skills. The laboratory is equipped with different measuring instruments used by customs officers in daily work when inspecting vehicles and

persons, for example, density and radiation measurement devices, metal detectors, endoscopes, drug tests and so on allowing to check that no counterfeit goods are hidden in the vehicle. Special hideouts have been created in hollow planks, car doors, seats, fuel tanks and tyres to train students to find counterfeit goods during practical classes.

Therefore, the laboratory imitates the most common hideouts for transportation of unauthorised goods in Latvia. The laboratory also has equipment for demonstration of different customs control training films and videos.

A **Technogenic Environment Security Scientific Laboratory** was created in 2019 to increase the level of environmental and industrial safety, conduct research in environmental sciences, environmental management and environmental engineering sub-fields, occupational safety and civil defence, as well as firefighting. The main tasks of the laboratory are to develop and implement research work programmes in the fields of occupational safety, civil defence and fire safety within European Union, Latvian Scientific Council and other scientific projects, to provide a technical base for research activities of master and doctoral students, to ensure independent and objective inspections and technical expertise in conformity with requirements of European Union and Latvian regulatory enactments in the field of occupational safety, civil defence and fire safety in cooperation with certification and testing bodies in the regulated and non-regulated sphere, to participate in the development of new standards, testing and risk detection methods in the field of occupational safety, civil defence and fire safety. The laboratory is equipped with the necessary functioning equipment, the range of which is constantly improved and expanded.

A **Technogenic Security Advisory and Training Centre** was created as an RTU organisational unit within the Institute of Occupational Safety and Civil Defence of the RTU Faculty of Engineering Economics and Management in order to provide qualified theoretical and practical assistance to natural and legal persons in the matters of security of technogenic environment. Upon request of national regulatory authorities, it organises a group of independent experts, who provide scientific and technical assistance in the matters related to environmental protection, explosion safety and fire safety, occupational safety and protection of people in case of emergency. Upon request of national regulatory authorities, it inspects sites and issues opinions about compliance of environmental and industrial safety with the requirements of regulatory enactments. The centre organises preparation and re-profiling of specialists in the field of environmental and industrial safety at the level of a professional improvement education programme.

Academic staff and students has access to different up-to-date versions of software for the needs of the study process and research: Aquad; Eviews; Visma Horizon; Microsoft Navision; Microsoft Power BI; Microsoft Project; Microsoft Visio; Microsoft Office; Minitab; IBM SPSS Statistics; Sigma Estimate; Tāmētājs; ArcGIS; NVivo; MATLAB and other.

*(in addition, see the description of each study programme in Section III of the report)*

**3.3. Provide information on the system and procedures for the improvement and purchase of the methodological and informative provision. Description and assessment of the availability of the library and the databases to the students (including in digital environment) and their compliance with the needs of the study direction by specifying whether the opening times of the library are appropriate for the students, as well as the number/ area of the premises, their suitability for individual studies and research work, the services provided by the library, the available literature for the implementation of the study direction, the databases available for the students in the respective field, the statistical data on their use, the procedures for the replenishment of the library stock, as**

## **well as the procedures and options for the subscription to the databases.**

Library plays an important role in the provision of methodological guides and educational resources to students. RTU Scientific Library (SL) (<https://www.rtu.lv/en/studies/scientific-library>) is a library of national importance, which has acquired its status in the process of library accreditation. The SL provides the necessary information to ensure RTU study process and research activities, as well as provides library, bibliographic and information services to RTU students, academic and general staff. The Library holds 1.4 million printed documents and e-resources in RTU industry specific databases. The Library stock is located at the Central Library, the Study Material Subscription, the Chemistry Branch, the Transport Branch and Study and Research Centres in Daugavpils, Liepāja, Cēsis and Ventspils.

In 2016, significant investments were made in the development of the SL infrastructure by building additional premises (2240 m<sup>2</sup>). The total area of the SL premises is 6393 m<sup>2</sup>, of which 3417 m<sup>2</sup> are reader service premises. There are 713 working places for SL users. The SL has four group rooms and six individual booths, a rare book reading room and a conference room. The SL is accessible for users with disabilities.

In order to improve the SL activities and to meet the information needs of academic and research staff, the Library Council has been established, which decides on replenishing the library collection with printed publications and subscribing to the necessary databases. The Library Council has approved the Compilation Policy of RTU SL Collection, which sets the basic principles of the collection development in accordance with the areas of RTU academic and research activities.

After the SL receives its funding from RTU, it calculates funding for the information resources for each study programme. The collection is replenished taking into account the recommendations of the heads of the study programme and researchers, in compliance with the allocated funding. By contacting the SL Collection Development Department regarding replenishment of collection, the desired editions can be ordered at the Library website by filling out an order form, an application form, contacting by phone 67089353, or visiting the Library at 5-105 Paula Valdena Street. The SL offers a guide, which includes websites of various Latvian and foreign publishing houses and bookstores for searching publications and e-resources.

Database subscription agreements are concluded both directly with the supplier and through the Cultural Information Systems Centre, which is the Latvian national representative for the international non-profit organization Electronic Information for Libraries (EIFL). The EIFL Licensing Programme offers libraries of state importance to subscribe to internationally recognized databases at a significantly reduced subscription fee that is not offered to individual subscribers, thus saving the financial resources of libraries.

At the request of the academic staff of the study direction "Management and Administration, Real Estate Management", 319 new books were purchased by the SL amounting to 23 765,73 EUR in the period of 2013–2019. Every month, the list of the newly-received literature is published in the newly-received literature bulletin under the section "Economics and Management".

The list of databases subscribed by the Scientific Library is available at <https://www.rtu.lv/en/studies/scientific-library/electronic-resources>. Subscription to such databases as ScienceDirect, SCOPUS (Elsevier) and the Web of Science is funded by the Ministry of Education and Science of the Republic of Latvia. The following databases are relevant for the study programs of the study direction "Management and Administration, Real Estate Management":



- ProQuest Ebook Central contains approximately 51,700 full-text ebooks published by the world's leading scientific publishing houses – Elsevier, Wiley, Springer, Oxford Press, Emerald etc. in various fields of science, as well as in economics, finance, and
- ScienceDirect – a database of scientific, technical and medical articles by Elsevier. Over 2,500 full-text journals (Freedom Collection) have been made available since 2002 and 354 full-text books in various fields of science, as well as in economics, finance, business, management and accounting.
- Academic Search Complete EBSCOhost – 8,800 full-text periodicals in various fields of science, as well as in economics, finance, business, management and accounting.
- Applied Science & Technology Source EBSCOhost – 1,200 full-text periodicals (applied mathematics, computer science, artificial intelligence, robotics, mechanical engineering, aeronautics, power engineering, chemical technology, and textile industry).
- Business Source Ultimate EBSCOhost – 5,100 full-text periodicals (management information systems, management, production management, marketing, economics, finance, accounting, international trade, and insurance).
- EBSCOhost eBook Academic Collection contains approximately 180,000 full-text ebooks in English, published by the world's leading scientific publishing houses in various fields of science, including economics, finance, business, management, and accounting.
- Wiley Online Library has more than 1,360 full-text journals (Full Collection) since 1997 in various fields of science, as well as in economics, finance, business, management, and accounting.
- SpringerLink has approximately 13,100 books published by Springer in the period of 2014–2018 in various fields of science, as well as in business and
- The International Monetary Fund (IMF) eLibrary offers access to important global economic information – IMF resources, periodicals, books, statistical databases and studies on macroeconomics, financial crisis, globalization, trade, international relations, politics, etc.
- LETA fields: Construction and Real Estate, Macroeconomics, Industry, Trade and Services, Transport and Transportation, Tourism, Hotel Business.
- Latvian Standards Database. Latvian national standards (LVS); European Standards (EN) adapted as Latvian standards; International Standards (ISO) adapted as Latvian standards; annexes to standards: amendments and adjustments. The thematic layout corresponds to ICS (International Classification for Standards). One can search for standards by number, read them. The database of Latvian standards is available in the internet room of the Central Library.
- The information system of regulatory enactments (NAIS) is available only in the internet room of the Central Library.
- The iFinances e-journal, in which accountants, CEOs or financial directors can find all the information they need, keep track of changes in tax deadlines and other news.

The A-to-Z software provides all users of the library with a simple and comprehensive list of online journals available in the library. It was created based on recommendations of teaching staff and students. Users can quickly access e-journals of interest and their full texts. Information about databases is available on all computers registered in the Central Library, branch libraries, RTU network and in the RTU e-study environment ORTUS (Resources). The use of SL databases has been growing since 2016. E-resource allocation has increased from 75,391 units to 525,194 units per year.

The SL new premises have made it possible to expand the range of services available to users. Since the opening of the new premises, the number of library visits increased from 103,825 to 235,600 in 2018. The SL Central Library is open to users from Monday to Saturday. There is a 24-hour reading room. During the summer period, the Central Library is open every working day with

reduced hours.

The SL information sources are open access resources. Books and periodicals relevant for the study direction "Management and Administration, Real Estate Management" are located in the main building of the Scientific Library (5 Paula Valdena Street) in compliance with UDC indexes. The last copy of the oldest editions that comply with RTU profile is stored in the library repository. They are always available to users.

The on-duty librarian helps find the necessary resources. More detailed information and consultations are provided by bibliographers. The SL has librarians responsible for particular fields of science.

Searching for library resources is ensured by the PRIMO search tool ([https://primolatvija.hosted.exlibrisgroup.com/primo-explore/search?sortby=rank&vid=371KISCRTU\\_VU1&lang=en\\_US](https://primolatvija.hosted.exlibrisgroup.com/primo-explore/search?sortby=rank&vid=371KISCRTU_VU1&lang=en_US)). It allows searching for the information in the library catalogue, subscribed databases, as well as in databases created by the Scientific Library. Searching for the information in the electronic common catalogue (<https://kopkatalogs.lv/F>), one can simultaneously obtain information about the available resources in 12 libraries in Latvia. Both the electronic catalogue and RTU portal ORTUS can be used to reserve the library resources remotely. Remote access to databases is also provided. Since the introduction of RFID technology, users have been able to use five book-dispensing self-service vending machines and return books to a book-sorting vending machine around the clock.

The SL provides students, academic staff and other interested parties with different types of individual consultations and group training in information literacy. Editions that are not available in the Scientific Library are delivered through an interlibrary subscription or international subscription. Internet access is provided throughout the library. The SL provides copying, scanning, printing and binding services, as well as there is a self-service canteen.

Academic staff of FEEM and RBS also have access to Firms.lv and Amadeus databases, which can be used for the purpose of studies and research.

In addition, as a result of international cooperation of RBS and FEEM *Harward Business Publishing* provides teaching staff access to electronic resources.

Each institute of the faculty has an additional methodological room with access to teaching and methodological materials in the specific field and the Bachelor and Master theses defended in previous years.

Regular and planned work is carried out on the improvement of methodological and informative provisions within the framework of the study direction. 37 textbooks and compendiums of lectures were published in the reporting period.

17 textbooks on different topics were issued in total. For instance:

- Financial literacy of entrepreneurs in managing financial stability (Nadežda Koleda, Nataļja Lāce, Karine Oganisjana, Gulbahita Kalijeva, 2013);
- Return on social investments: handbook (Inga Lapiņa, Raimonda Liepiņa, Sroi Network, 2014);
- Marketing research: theory and practice in the SPSS 20 environment. Part 1 (Vladimirs Jansons, Konstantins Kozlovskis, 2015)
- Shake up Start ups. Non-formal business academy: methodological manual (Ilze Judrupa, Aleksandra Mihņenoka, Alise Vītola, 2016);
- International real estate deals (Jānis Viesturs, Ineta Geipele, 2017);
- Management of personal finances (Guna Ciemleja, Nataļja Lāce, 2018);

- Financial statements (Guna Ciemleja, 2019), etc.

Special attention is drawn to the development of research work competence of students and therefore the **Methodological Instructions for Preparation of Study and Graduation Papers** were developed and approved at a meeting of the FEEM Methodological Committee in 2016. They are intended for students, academic staff, supervisors and reviewers of graduation papers, and members of the graduation examination committee of the RTU Faculty of Engineering Economics and Management. The methodological instructions for preparation of papers have been drafted as guidelines for preparation of all types of study papers (including reports, internship reports, etc.) and graduation papers (qualification papers, diploma papers, Bachelor and Master theses): [https://www.rtu.lv/writable/public\\_files/RTU\\_metodiskie\\_noradijumi\\_ievf\\_2016.pdf](https://www.rtu.lv/writable/public_files/RTU_metodiskie_noradijumi_ievf_2016.pdf)

A visual guide in a video format on the use of the methodological instructions for preparation of study and graduation papers has been prepared: <https://www.rtu.lv/lv/ievf/studijas-ievf/studiju-process/metodiskie-noradijumi>

Methodological instructions in English were prepared for the study direction in 2017 in cooperation with the International Cooperation and Foreign Students Department, the Faculty of E-Learning Technologies and Humanities (FETH). Similarly to the material in Latvian, they include essential information on the methodology and a broad overview of formatting requirements.

In addition to the aforementioned, methodological materials are created also for each study programme (*in addition, see the description of each study programme in Section III of the report*).

### **3.4. Provide information on the procedures for attracting and/or employing the teaching staff (including the call for vacancies, employment, election procedure, etc.), and the assessment of their transparency.**

The implementation of RTU personnel policy is stipulated in the Human Resources Development Plan, which focuses on three main goals within the professional development of the academic staff: renewal of the academic staff, by promoting academic work of Doctoral students, improvement of the professional competence of the existing academic staff and attraction of foreign academic staff. The action plan sets out, for each goal, the activities and sub-activities to be carried out, defines the results to be achieved, the responsible organizational units and the implementation schedule.

Elections of RTU academic staff are held in accordance with the requirements of the Law on Higher Education Institutions and Cabinet regulations based on the recommendations of the Council of Higher Education, in accordance with the Constitution of RTU and the regulations approved by the Senate "On the Procedure of Electing Professors and Associate Professors" and "On the Procedure Of Electing Assistant Professors, Lecturers and Assistants" (publicly available at [https://www.rtu.lv/writable/public\\_files/RTU\\_rtu\\_profesoru\\_un\\_asocito\\_profesoru\\_ievlanas\\_krtba\\_30.11.2015..pdf](https://www.rtu.lv/writable/public_files/RTU_rtu_profesoru_un_asocito_profesoru_ievlanas_krtba_30.11.2015..pdf) and [https://www.rtu.lv/writable/public\\_files/RTU\\_rtu\\_docentu\\_lektoru\\_un\\_asistentu\\_ievlanas\\_krtba.pdf](https://www.rtu.lv/writable/public_files/RTU_rtu_docentu_lektoru_un_asistentu_ievlanas_krtba.pdf), as well as included in the file of Appendix 42-43 of the list of Internal regulations), as well as in compliance with other internal laws and regulations.

At the proposal of organizational units, the faculty council or the institute board shall consider and approve a reasoned proposal made by the head of a respective organizational unit for announcement of the competition for vacant academic positions, which expire in the respective academic year. The faculty council or the institute board shall submit the proposal under

consideration to the RTU Personnel Unit together with the job description and qualification requirements, including the workload (full-time or part-time).

The Personnel Unit announces a competition for academic staff positions at RTU website, the Euraxess vacancy portal and at least in one mass medium distributed throughout Latvia. The applicant shall personally submit or send by email the signed application documents no later than one month after the date of competition announcement.

The employment relationship shall be established by means of a written employment agreement between the Employer and the Employee at least two working days before the commencement of employment. The employment agreement shall be drawn up in duplicate. One copy shall be kept by the Personnel Unit of the Department of Personnel and Working Environment (in accordance with RTU File Nomenclature) and the other shall be issued to the Employee. Prior to entering into the employment agreement, the applicant is acquainted with RTU Rules of Procedure.

Employee's duties are defined in accordance with the Classification of Occupations of the Republic of Latvia and RTU Position Catalogue, RTU Remuneration Procedure (<https://www.rtu.lv/lv/universitate/skaitli-un-fakti/vienota-darba-samaksas-kartiba>), RTU Rules of Procedure and the requirements laid down in the job description, which is an integral part of the employment agreement. Job description shall be presented to and signed by the Employee. Job description shall be drawn up in duplicate; one copy shall be issued to the Employee and the other shall be kept according to RTU Case Nomenclature.

Before taking up the employment, the Applicant shall present an identity document – passport or identity card, the Foreigner shall additionally present a visa or residence permit, as well as a work permit if such a permit is required in accordance with regulatory enactments.

Visiting academic staff shall be employed in compliance with:

- Law on Higher Education Institutions (<https://likumi.lv/doc.php?id=37967>);
- Labour Law (<https://likumi.lv/ta/id/26019-darba-likums>);
- Immigration Law (<https://likumi.lv/ta/id/68522-imigracijas-likums>);
- Cabinet Regulation No 568 "Regulations Regarding the Procedure by which a Research Institution Concludes and Terminates Employment Agreements with a Foreign Researcher" as of 21 July 2008 (<https://likumi.lv/doc.php?id=178749>);
- Cabinet Regulation No 225 "Regulations Regarding the Amount of Financial Means Necessary for a Foreigner and the Determination of the Existence of Financial Means" as of 25 April 2017 (<https://likumi.lv/doc.php?id=290808>);
- Cabinet Regulation No. 25 "Implementing Regulations for the First, Second and Third Project Applications Selection Round of Specific Objective 8.2.2 "To Strengthen Academic Staff of Higher Education Institutions in the Areas of Strategic Specialization" of the Operational Programme "Growth and Employment" as of 9 January 2018 (<https://likumi.lv/doc.php?id=296513>);
- RTU internal regulations "Procedure of Involvement and Employment of Visiting Academic Personnel at RTU" as of 26 November 2018 (see the file of Annex 25 of the list of Internal regulations);
- RTU internal regulations "Unified Work Remuneration Procedure at Riga Technical University" as of 17 December 2019.

According to the results of the applicant selection competition, the employment agreement with the visiting academic staff is signed within a month, specifying an hourly rate. Job description is also provided, which includes specific job responsibilities (delivering lectures, designing study courses, lecture cycles, supervising study papers, etc.). The workload of the visiting academic staff member

may include the provision of face-to-face work (delivering lectures, providing tutorials, conducting seminars, supervising graduation papers, etc.) and remote work if it complements the face-to-face work (video lectures, tutorials, supervision of graduation papers). If the work is to be carried out remotely, face-to-face visits (e.g., tutorials) should be provided at the organizational unit.

The visiting academic staff member shall enter into the employment agreement in compliance with the requirements of the Latvian regulatory enactments. During the term of the employment agreement, all assignable copyrights for the work created by the visiting academic staff member, including curricula, materials, and any other teaching aids developed by the visiting academic staff member, shall pass to the Employer. The visiting academic staff member, upon termination of the employment agreement, shall be obliged to transfer the work created within the framework of the employment agreement, including study materials, to RTU. Before terminating the employment agreement, the visiting academic staff member shall submit to the head of a respective organizational unit the reports and other documents stipulated in the employment agreement.

In addition to centralised RTU activities, in 2018, FEEM developed a video instruction for new teaching staff, which shows the most important items to know when starting an employment relationship with RTU. It includes several sections with documents and links to materials, for example the Law on Higher Education Institutions, the RTU Studies Regulations, Assessment of Learning Outcomes, RTU Rules of Procedure and other, as well as shows the most important things about the RTU e-study environment ORTUS, the study process and planning of the study work.

**3.5. Specify whether there are common procedures for ensuring the qualification of the academic staff members and the work quality in place and provide the respective assessment thereof. Specify the options for all teaching staff members to improve their qualification (including the information on the involvement of the teaching staff in different activities, the incentives for their involvement, etc.). Provide the respective examples and specify the way the added value of the possibilities used for the implementation of the study process and the improvement of the study quality is evaluated.**

At the end of 2018, the Center for Academic Excellence (teaching and learning centre) was established at RTU in order to support RTU academic staff (in the areas of pedagogical, intercultural communication and self-development). The main tasks of the Center for Academic Excellence are as follows:

- to organize various educational events, such as seminars, thematic series of events, guest lectures, conferences, discussions with the participation of the Latvian and foreign specialists;
- to coordinate experience exchange activities within faculties and other organizational units;
- to inform (including posting to ORTUS) the academic staff about the latest teaching and learning trends that are appropriate for RTU;
- to provide guidance to academic staff on the use of teaching and learning methods, as well as on the assessment of students' knowledge, skills and competence;
- to inform students about learning opportunities, such as platforms, systems, applications, effective methods and forms of learning that can be used both in the study process and individually.

Each semester, a core set of activities is offered taking into account the professional competence

and needs of the academic staff. As a basis for the list of professional development activities in the autumn semester of 2019, the academic staff survey that was conducted in 2018 was used, in which the academic staff mentioned the topics they would like to acquire. Such surveys are planned to be conducted every two years or as required.

The Center for Academic Excellence organizes two methodological conferences a year. The conference organized in the autumn semester is dedicated to the modern content of the study courses, while the conference held in spring focuses on modern teaching and learning methods. Materials of all events are available on ORTUS within the study course "Materials of the Center for Academic Excellence".

After each professional development event, participants complete assessment questionnaires, which enable organizers to improve the range of offered events. In order to promote the development of competences of the academic staff, the student surveys are analysed each semester, as well as discussions with the representatives of faculties, student self-governments and the instructors themselves take place.

Educational events are also organized by the Career Support and Services Unit, providing regular seminars to RTU academic and general staff on the following issues:

- cultural diversity;
- work productivity (time planning, conflict resolution, communication culture, etc.);
- critical thinking.

For participation in seminars, employees receive professional development certificates issued by RTU Department of Further Education.

The themes of seminars and classes are offered taking into account the results of RTU staff surveys, as well as current trends at foreign universities. Information on seminars organized over the years is available at <http://karjera.rtu.lv/projekti/seminaru-un-vieslekciju-arhivs/>.

RTU IT User Support Center regularly organizes training on IT systems and the latest technology tools for RTU academic and general staff. Training is organized on the following topics:

- e-learning environment (Moodle) for beginners;
- e-learning environment (Moodle) for advanced users;
- MS Outlook email and calendar;
- Office365 Teams and OneDrive;
- searching in subscribed databases;
- record-keeping systems;
- basic IT security issues working with RTU information systems.

In January each year, the Student Parliament of RTU organizes the contest "Annual Award of the Student Parliament of Riga Technical University". During the event, faculty academic staff members chosen by the students are awarded the honorary titles "Most Active Instructor of the Year" and "Instructor of the Year".

To recognize and appreciate RTU academic staff, since 2018, RTU has been organizing contests "Annual Academic Excellence Awards" and "Young Academic Staff Member of the Year" in cooperation with the foundation "Riga Technical University Development Fund" and Industry Service Partner Ltd. The aim of these events is not only to award the best academic staff members, but also to promote creativity in the academic environment.

Professional advancement activities for academic staff and general staff are also regularly organized within the framework of the faculty according to a previously designed plan.

For example, in 2018, educational events on the following topics were organized:

- 10.01, 17.01 “Training for Couching”,
- 13.02. “The aims of the study field and their correspondence to the field of activity of the institution of higher education, directions of strategic development, development needs of society and national economy and development tendencies.”,
- 23.02 “Plagiarism, copyright infringement and the preventive measures”,
- 23.04 “Use of computer programs – Word and Excel”,
- 10.04 “Preparation of the self-assessment report”,
- 16.04 “Use of Microsoft Office 365”,
- 27.04 RTU FEEM academic conference “Integration of Methodological and Scientific Work in the Study Process”
- 18.06 “Use of IT classroom management software NetSupport in lectures”,
- 25.09 “The sectoral qualifications structure and professional standards – current issues and solutions”,
- 27.11 “Organization of document management and data preparation for reports”,
- 30.11 “Integration of scientific activity in the study process”.

In 2019, educational events on the following topics were organized:

- 28.01 “Topicalities in document management, circulation of electronic documents in the RTU Document System and preparation of documents for submission to the RTU archive”,
- 29.01 “Formulation of topics for final theses and procedure of their development”,
- 11.02, 7.03, 27.03 “About the structure, navigation and certification capabilities of the Bloomberg database”,
- 15.02 “Didactics, study process improvement and study course audit”,
- 19.02 “Preparation of data for annual reports and reviews”,
- 19.02 “The new practical placement organization at RTU”,
- 01.03 “Corporate culture – how to reduce internal friction and increase external opportunities?”,
- 29.03 “Efficient management of personal income tax”,
- 12.04 RTU FEEM academic conference “Transversal Competence-Based Education in Schools and Its Impact on Higher Education”,
- 23.04 “Use of Library Databases in the Study Process”,
- 21.05 “Renewal of the study course “Practical Placement”,
- 18.10 “About the new RTU academic staff CV (Curriculum Vitae) tool”.

In accordance with the RTU Development Policy and the guidelines approved at a FEEM Council meeting in 2017 within the scope of it, an annual evaluation of professional qualifications of academic and scientific staff takes place within organisational units and an annual qualification improvement plan for teaching staff is drawn up based in the evaluation results.

Starting from academic year 2017/2018, the RTU FEEM Council approves a **plan of FEEM didactic and professional improvement activities**. **34** different events have been planned and implemented, incl. academic conferences, international conferences, as well as professional improvement seminars for academic and administrative staff of FEEM. Almost 80% of academic and administrative staff representatives participate in the events, taking into account the topic and the planned target audience of the activity. **Examples** of the professional improvement activities organised for **academic staff** in the reporting period:

- 27 April 2018, FEEM **Academic Conference “Integration of teaching methodology and research work in the study process”**. At the plenary session of the conference, Tatjana Volkova, professor of the BA School of Business and Finance spoke about “Integration of



methodological and research work in the study process"; Uldis Sukovskis, RTU Vice-Rector for Studies, professor spoke on the "Impact of digitalisation on quality assurance in higher education"; Tatjana Koķe, professor of the Rīga Stradiņš University spoke on "Contemporary trends in teaching methodology and lifelong learning". Further work of the conference was organised in two sections: "Organizational and methodological challenges in contemporary studies" and "Digitalization – the potential of using information technology in higher education". **82 persons** participated in the conference, most of whom were academic staff of this study direction. Overall, FEEM academic staff submitted 33 publications, 18 of which were submitted by teaching staff of this study direction, their summary is provided in the collection of electronic publications ISBN: 978-9934-22-070-8.

- 23 February 2018, **FEEM seminar "Plagiarism, infringement of copyright and preventive measures"**, where the dean provided information on the legal aspect of plagiarism, its types and self-plagiarism. Representatives of the RTU Press told about publication ethics including information on violations of the publication ethics and international practices on their examination and cases of conflict of interests and its declaration. A representative of the RTU Study Unit told about plagiarism in study papers, methods of checking for it and computerised methods of checking plagiarism and recommended actions when plagiarism is stated.
- 1 March 2019, **FEEM seminar "Corporate culture - how to reduce internal friction and multiply external possibilities?"**. At the seminar, the FEEM dean told about corporate values, confidence, norms and tradition systems.
- The FEEM dean and professor Elīna Gaile-Sarkane implemented a pedagogical improvement course for RTU teaching staff for the purposes of introducing modern methodology at RTU in product development and business teaching. The seminar for RTU teaching staff that started in the previous period continued in the autumn semester with latest news in teaching how to create new products, which were presented by the assistant professor Modris Ozoliņš, professor Elīna Gaile-Sarkane and lecturer Judīte Jakubāne.
- 12 April 2019, **FEEM Academic Conference "Transversal skills based education in schools and its impact on higher education"**. The purpose of the conference was to share experiences in integration of teaching methodology and research work in the study process for the purposes of developing students' competences more completely. Speakers of the conference were a teacher of the Sigulda Elementary School 1, senior expert of the Project "School2030" technology education field with a topic "Technology education curriculum and approach", teacher of economics at the Agenskalns State Gymnasium with a topic "Education for modern literacy: curriculum and approach accents. Planned learning outcomes in economics/foundations of business" and director of the Ogre Secondary School 1 with a topic "New curriculum and study process in general secondary education". **73 persons** participated in the conference, most of whom were academic staff of this study direction. The conference proceedings are available in the LNB digital library: <http://dom.lndb.lv/data/obj/752154.html>
- In the spring semester of academic year 2017/2018, the FEEM dean and professor Elīna Gaile-Sarkane implemented a pedagogical improvement course for RTU teaching staff for the purposes of introducing modern methodology at RTU in product development and business teaching. The cycle of seminars for RTU teaching staff that started in the previous period continued in the autumn semester of the next year with latest news in teaching how to create new products, which were presented by the assistant professor Modris Ozoliņš, professor Elīna Gaile-Sarkane and lecturer Judīte Jakubāne. Overall, the training was attended and the certificate was obtained by 28 academic staff representatives.

Examples of the professional improvement seminars organised for **academic staff** in the reporting



period:

- seminar on the use of "Microsoft Office 365". The seminar covered the topics of editing and saving documents in web software (Word Online, Excel Online, PowerPoint Online or OneNote Online), as well as sharing opportunities in different workgroups providing for convenient and quick processing of documents and summarising of data;
- seminar on computer software used Microsoft Word, Microsoft Excel and Microsoft PowerPoint. The emphasis of the seminar was to encourage record-keeping staff to use the opportunities provided by computer software more widely keeping track of the most convenient software use options and thus maximally reducing the time for preparation of different documents and reports;
- seminar for office administrators and heads together with Deputy Director of the RTU Study Unit and head of the Study Organization Unit on latest developments in record-keeping organisation matters, incl. procedures and deadlines for record-keeping documents; electronic application for state scholarships;
- seminar for office administrators and heads on preparation of data for annual reports and statements.

*See appendix for additional information: Plan of FEEM didactic and professional improvement activities.*

The data obtained during professional improvement and improvement of qualification, as well as in research work are integrated in the study process thus improving it. Latest developments in the field are constantly followed-up in the study process – academic staff participates in projects, the results are used in updating the study curriculum. Local and international cooperation in research and academic works is an important element of development of staff. (*for additional information see Chapters 4 and 5 of Part II of the Report*).

For the fifth year in a row (since academic year 2015/2016) doctoral students and academic staff of the study direction participate in the study course "Latest developments in business research", which is implemented in joint doctoral study programmes of the BA School of Business and Finance and "RISEBA" University of Business, Arts and Technology in cooperation with SSE Riga and Kaiserslautern University of Applied Sciences. The study course is based on experience exchange with several business researchers who are well-known in Latvia and Europe. For example, *Dr. Rodrigo Basco, Witten/ Herdecke University, Germany; Dr. Mirela Xheneti, University of Sussex, U.K.; Dr. Tomas Karlsson, Chalmers University of Technology, Sweden; Dr. Anke Piepenbrink, ESC Rennes, France; Dr. Tatiana Iakovleva, UiS Business School, Norway; Dr. Xavier Landes, University of Copenhagen, Denmark; Dr. Maryia Akulava, Belarusian Economic Research and Outreach Center, Belarus*. Each of the researchers shares experience on a specific business topic thus extending knowledge on latest developments in research of business processes.

In January each year, the Student Parliament of RTU organizes the contest "Annual Award of the Student Parliament of Riga Technical University". During the event, faculty academic staff members chosen by the students are awarded the honorary titles "Most Active Instructor of the Year" and "Instructor of the Year".

To recognize and appreciate RTU academic staff, since 2018, RTU has been organizing contests "Annual Academic Excellence Awards" and "Award and Honorary Title for the Young Academic Staff Member of the Year" in cooperation with the foundation "Riga Technical University Development Fund" and Industry Service Partner Ltd. The aim of these events is not only to award the best academic staff members, but also to promote creativity in the academic environment. The Academic Excellence award of 2019 went to professor Inga Lapiņa. A new teaching staff member, lecturer Leonards Budņiks, was awarded in 2018. A money prize from Industry Service Partners in

2018 went to the FEEM dean, professor Elīna Gaile-Sarkane, while FEEM lecturer Aleksandra Mihņenoka was awarded in 2019.

In addition to joint annual RTU activities, the FEEM Student Self-Government organises an honorary event **“FEEM Pride”**, which is a project initiated and independently organised by students to say thank you for daily work of teaching staff, promotion of education of students and growth of the faculty. Nominations are broken down into several groups. In May 2019, the event was held for the 16<sup>th</sup> time. In order to determine those who obtain the “FEEM Pride 2019” award, representatives of the FEEM Student Self-government created questionnaires, where students could propose teaching staff for nominations, as well as created a new methodology of processing of data from the questionnaires. Awards were granted in the nominations offered by students of undergraduate studies and Master’s study programmes. This year, a new nomination was proposed by students of foreign study programmes – **“Education Without Borders”**. Two **“EMPLOYEE OF THE YEAR”** nominations were proposed in 2019 – one by students and one by faculty management. The title of **“Employee of the year”** proposed by students went to the **head of the study office**, which the title of **“Employee of the year”** proposed by faculty management went to the **deputy dean** for administrative affairs.

At the event “FEEM Pride 2019” the FEEM dean presented eight certificates of acknowledgement to heads of organisational units and deputy deans, who made an invaluable contribution to the work of FEEM.

The academic staff of FEEM is appreciated not only within RTU. Several awards and acknowledgements of national importance were granted in the reporting period. In 2016, the Chapter of Orders decided to award the Cross of Recognition, Class IV to Konstantins Didenko, correspondent member of the Latvian Academy of Sciences, and to make him a chevalier of the order for merits for the benefit of the Latvian State. In 2016, professor Remigijš Počs was elected a LAS academician at the autumn general meeting of the Latvian Academy of Sciences (LAS). In 2016, professor Inga Lapiņa, professor Elīna Gaile-Sarkane, professor Aivars Vilnis Krastiņš, professor Jānis Mazais, professor Jānis Ieviņš, professor Ineta Geipele received certificates of acknowledgement from the Ministry of Education and Science for their notable contribution to the implementation of Latvian higher education, creation of a single academic environment in the field of business, economics, quality and process management in Latvia and globally. In 2018, professor Aivars Vilnis Krastiņš was awarded a Badge of Honour of Class I of the State Revenue Service (SRS) for his personal contribution in the development of SRS by creating and strengthening the customs and tax education system in Latvia.

**3.6. Provide information on the number of the teaching staff members involved in the implementation of the relevant study programmes of the study direction, as well as the analysis and assessment of the academic and research workload. Provide the assessment of the incoming and outgoing mobility of the teaching staff over the reporting period, the mobility dynamics, and the issues which the higher education institution/ college must tackle with regard to the mobility of the teaching staff.**

217 teaching staff members, of which 131 (59 %) are elected to an academic position at RTU, while 86 (41 %) are employed temporarily for the implementation of the study process, are involved in the implementation of the study direction “Management and Administration, Real Estate Management”. Professional qualifications of the academic staff are fully compliant for the

implementation of study programmes of the study direction and 87 (66%) of elected RTU academic staff members hold a doctoral degree, 44 (34%) hold a Master's degree. Extensive information on all the teaching staff of the study direction is available in Appendixes: List of academic staff and CVs.

The analysis of elected academic staff of RTU leads to the conclusion that the doctoral degree has been obtained in the field of science corresponding to the course being taught. Most have the degree of a doctor of Economics (in management and economics), however, depending on the course being taught, there are academic staff representatives with a doctoral degree in engineering, pedagogy, social sciences, etc.

50 (40%) academic staff representatives have been elected as professors or associate professors. The study direction currently employs 23 professors and 27 as associate professors, whose main responsibility is development and improvement of study courses, work with doctoral students and Master students, as well as they have higher workload in research work and work in scientific projects. The academic staff, whose main priority is scientific research work, are 9 leading researchers, 7 researchers and 11 scientific assistants. 15 lecturers do academic work as their primary work in the study direction. An assistant professor's position has a comparatively higher workload with 28 (21%) persons elected, and 11 (8%) of persons are assistant professors in professional study programmes (in accordance with Section 39 of the Law on Higher Education Institutions).

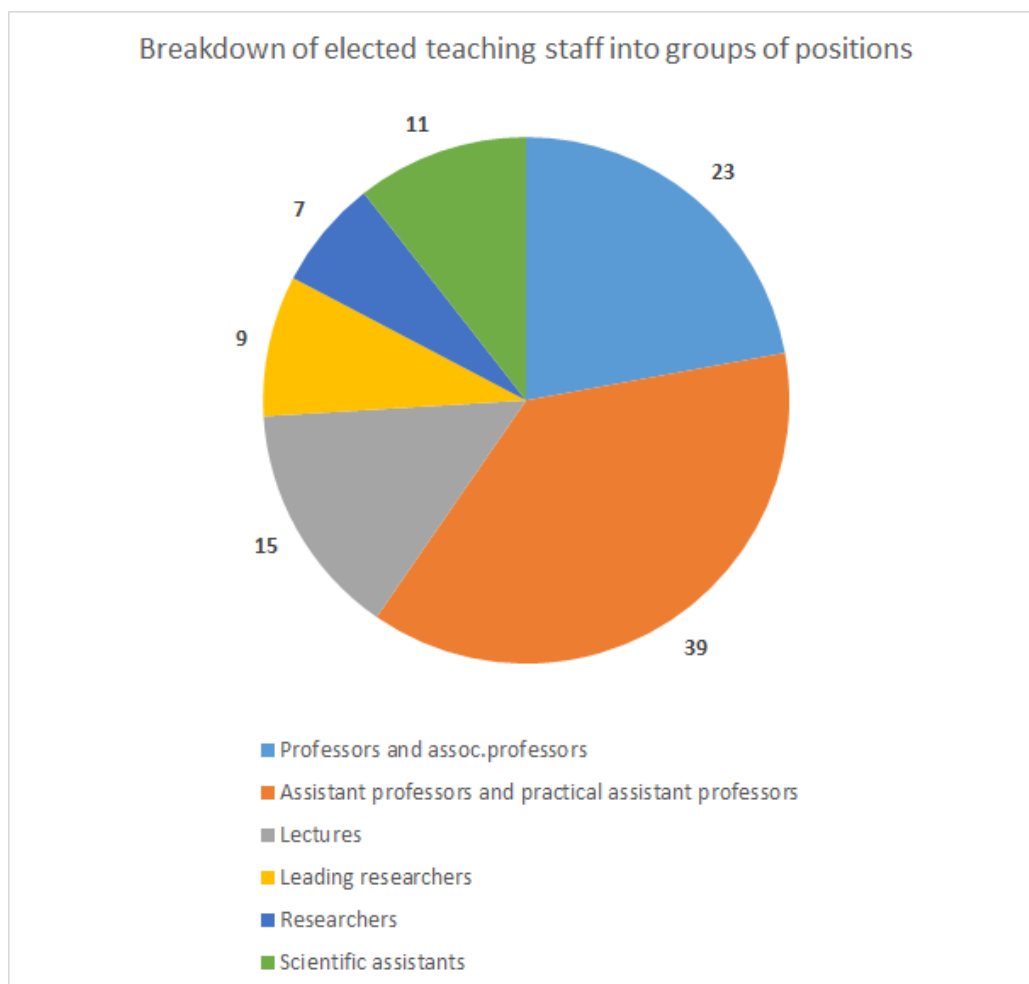
**When determining the remuneration and workload** for academic (pedagogical) work, administrative work and research (including project) work, the basic principle of integrated planning is used taking into account the planned workload for the current reporting period (semester or academic year) and making adjustments for the work done during the previous period.

Academic (pedagogical) work includes contact hours in classrooms and laboratories, consultations, supervision and review of study projects and final theses, work in examination commissions, methodological work and activities that improve the quality of studies, etc.

Administrative (organizational) work includes management of study programs, work in boards / commissions / council / senate, management of structural units, etc.

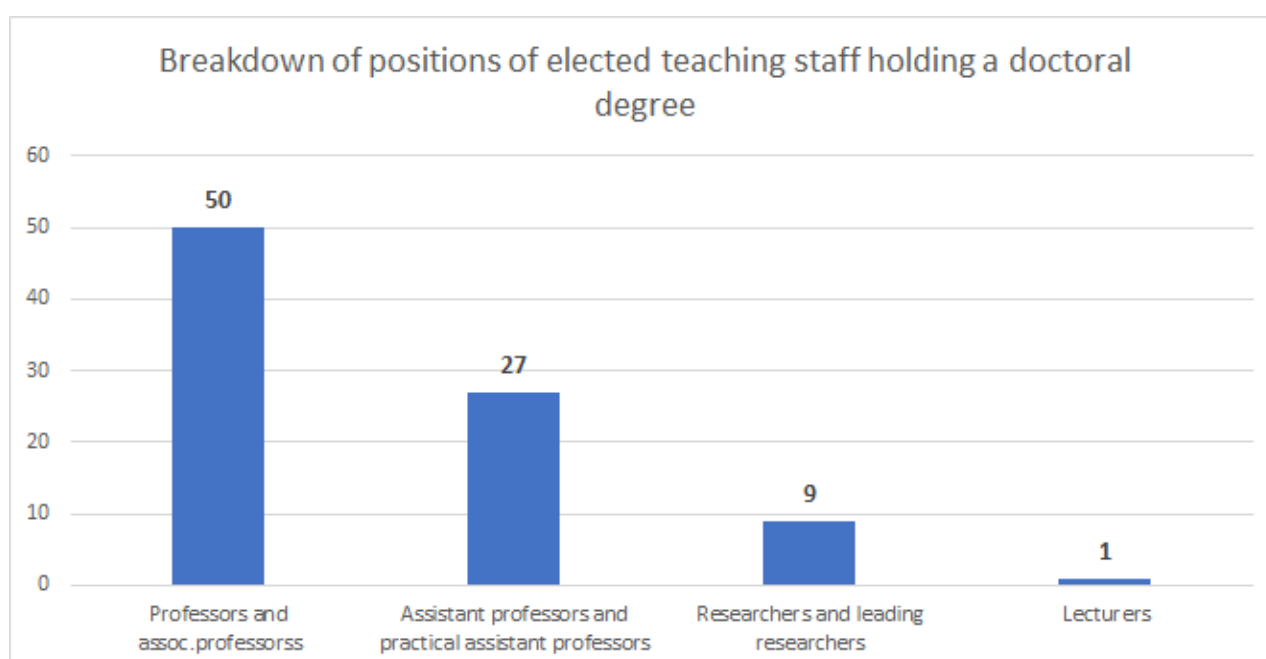
Research (scientific) work includes attraction and management of projects, performance of research tasks, which is remunerated from development resources or third party funding (incl. contracts, contract work with legal entities in Latvia/abroad, etc.), preparation of publications, supervision and review of doctoral theses, work with doctoral students, consulting,

In most cases it is not possible to strictly separate and determine the academic and research workload. Daily duties of staff overlap and all elected academic staff representatives have both academic and research workload, and in individual cases also administrative work. RTU does not strictly distinguish academic and research **workload**, its proportion is **determined for each academic staff representative individually** when planning the workload of the employee at the department, as well as taking into account their positions, involvement in the implementation of projects, professional competence and experience.



**Figure:** Breakdown of elected teaching staff into groups of positions

The evaluation of 87 elected academic staff representatives of RTU holding a doctoral degree leads to the conclusion that this group includes all the 50 elected professors and associate professors, as well as 26 assistant professors and only 1 lecturer. Out of the nine teaching staff members elected into a scientific position four hold a doctoral degree and all of them have been elected as leading researchers.



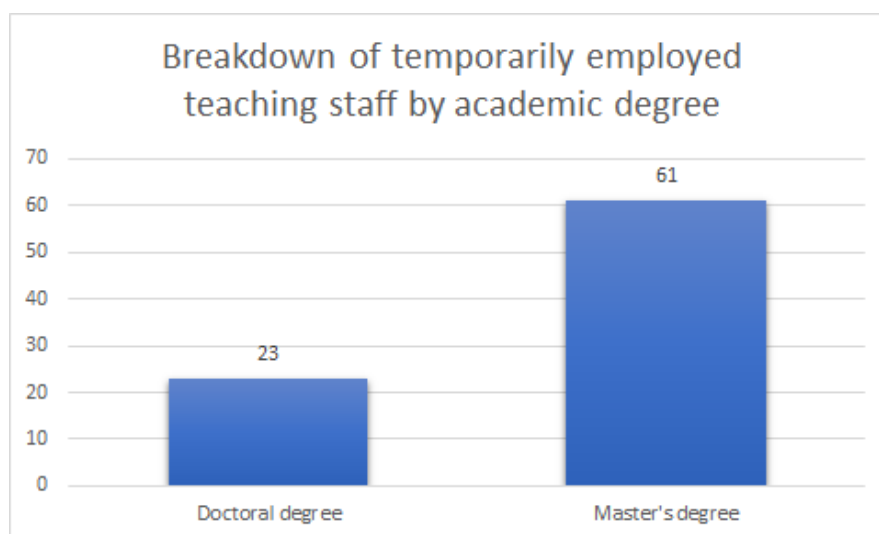
**Figure:** Breakdown of positions of elected teaching staff holding a doctoral degree

Out of 44 academic staff representatives holding a Master's degree, who mainly do academic work, 14 (35%) have been elected as lecturers and 11 (26%) as assistant professors in professional study programmes. The teaching staff, whose priority is research work, are scientific assistants – 10 (23%) and researchers – 7 (16%).

The qualification of academic staff in the study direction is very high, and it is of particular importance that most of academic staff holding a doctoral degree are leading professors in their field and researchers with important international experience. However, it is no less important that the teaching staff holding a Master's degree for now in the majority of cases work under guidance of professors and associate professors. Most of these teaching staff members are students of doctoral study programmes or candidates for a scientific degree. Such a breakdown of positions marks a strong trend in ensuring knowledge transfer and sustainability for make the study direction continue qualitative work in the field of studies, research and artistic creation.

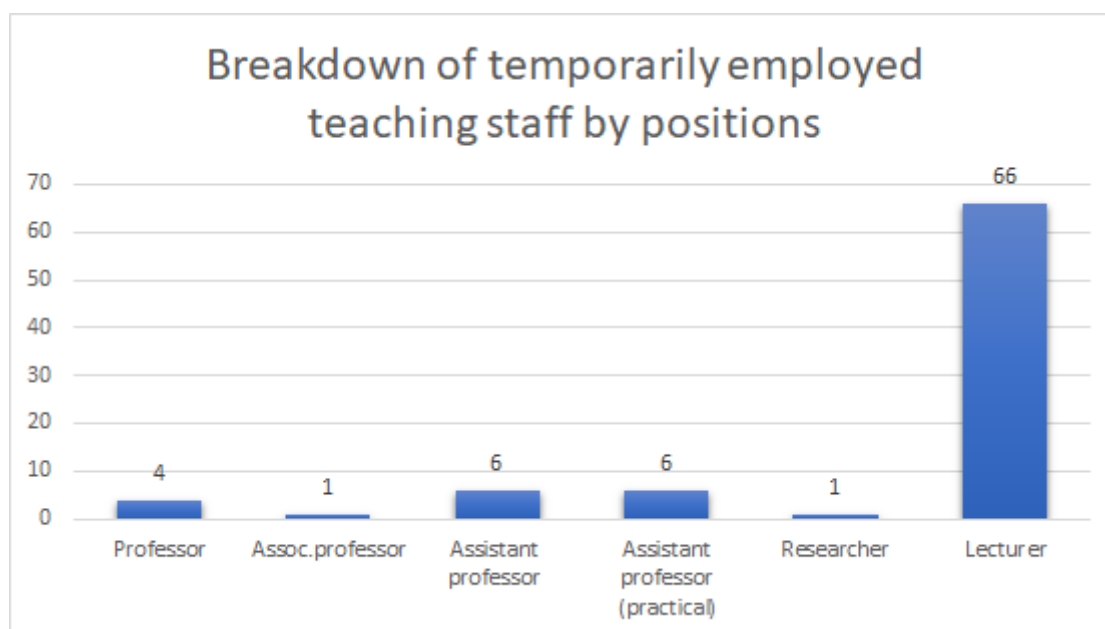
Academic staff from other organisational units and fields with relevant professional experience is also involved in the implementation of the study process. In order to ensure a balanced proportion between academic and practical curriculum within study courses, as well as mastering of highly valuable knowledge corresponding to the current business environment in the study process, high-level experts, experienced and successful management professionals from sectoral companies and organisations are involved as visiting lecturers in the implementation of study courses. The main purpose of involvement of such teaching staff is to increase the quality of curriculum and to take over current industry trends into the curriculum.

The faculty temporarily employs 84 members of teaching staff, 23 (27%) hold a doctoral degree and the majority – 61 members of teaching staff or 73% hold a Master's degree.



**Figure:** Breakdown of temporarily employed teaching staff by academic degree

66 (77%) of all temporarily employed members of teaching staff work as visiting lecturers, 12 (17%) – as visiting assistant professors, 6 of which are visiting assistant professors in professional study programmes. 5 (5%) of members of teaching staff occupy positions of a visiting professor or a visiting associate professor, but 1 are employed as researcher.



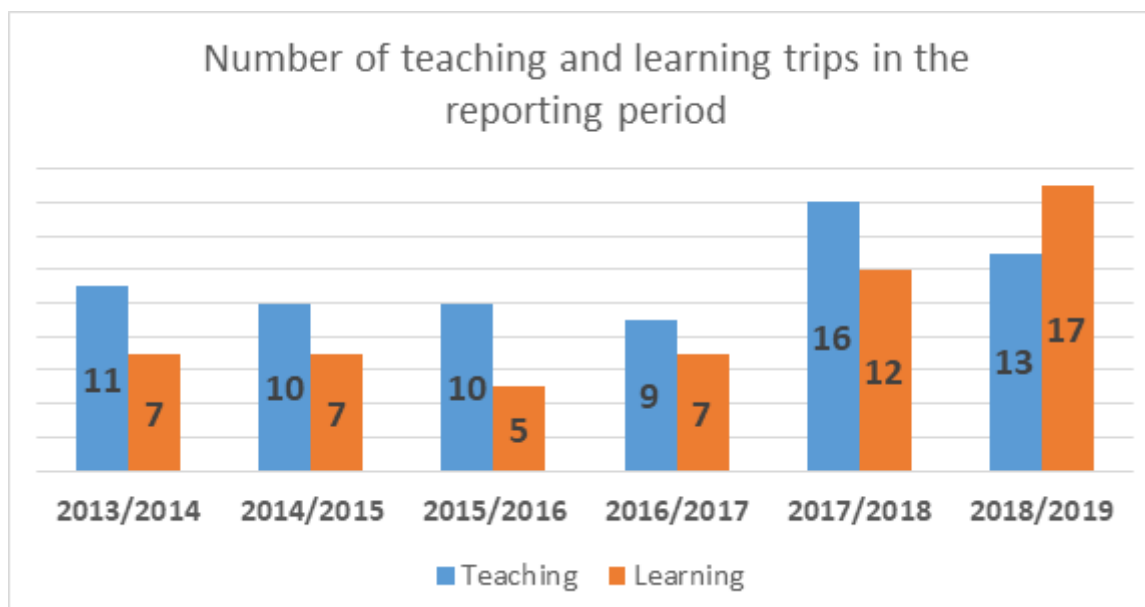
**Figure:** Breakdown of temporarily employed teaching staff by positions

Improvement of competences of teaching staff by involving into mobility programmes, as well as involvement of foreign lecturers are important to ensure quality of the study process. Mobility of teaching staff of the study direction is evaluated as rather high, and it has happened in different forms. Many teachers improved their qualifications by participating in international teaching staff exchange programmes (for example, ERASMUS+, EEA and other). In the reporting period, academic staff and administrative employees actively participated in international exchange programmes and read visiting lectures abroad.

In the reporting period, there were about 500 visits for the purposes of participating in international conferences and seminars, more than 200 experience exchange trips and meetings to discuss potential cooperation, there has been regular participation in work groups of international project partners.

The *Erasmus+* programme is particularly important in international cooperation between universities. In the reporting period, teaching staff participated 124 times in mobility of Erasmus+ programme from 2013 to 2019. Teaching mobility was implemented 69 times, while learning mobility – 55 times. A table with data on participation in the *Erasmus+* programme is enclosed.

Teaching staff used mobility opportunities 16 times per year on average from 2013 to 2017. Mobility has intensified in the last three years (from 2017 to 2019), when 29 persons used mobility opportunities per year on average.



**Figure:** Number of teaching and learning trips in the reporting period

Germany was attended most often (20 times) followed by the Czech Republic (15 times), Lithuania and Estonia (10 times each). The United Kingdom was attended ten times. Less visited countries were Romania, Iceland, Turkey, Hungary, Slovenia, Ireland – one time each. The number of visits depends on individual factors related to succession of cooperation. Teaching staff members mostly choose to attend a specific university several times, thus reinforcing the existing cooperation.



**Figure:** Staff mobility, countries visited

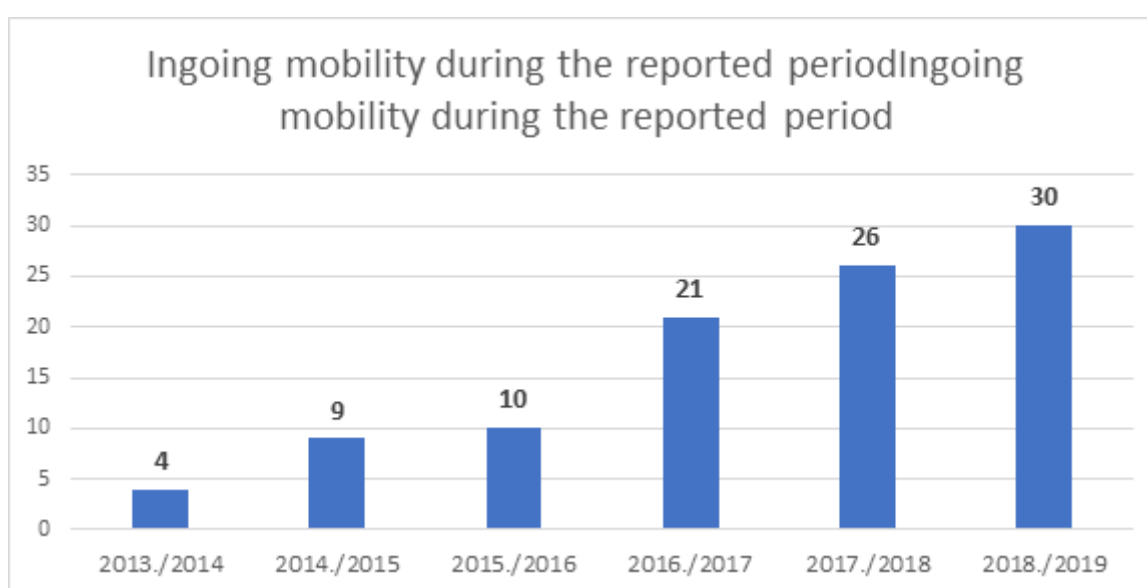
Mobility of academic staff is affected by different factors. The process of application for mobility is individual, it is restricted by daily research and academic activities of teaching staff, which complicates alignment of work with mobility.

Foreign academic staff members were involved in the study process of the study direction study programs throughout the reporting period. Academic staff members mainly participated in Erasmus+ mobility programme, as well as took advantage of other opportunities related to

participation in joint international projects, involvement in scientific research, etc.

112 academic staff representatives from 26 different countries of the world worked at the faculty in total from 2013 to 2019. Most of foreign visiting university lecturers were attracted in 2018, least – in 2013. The foreign academic staff represented 56 different universities and international institutions.

In accordance with Section 3(7) of the Law on Higher Education Institutions, which entered into force in 2018, at least five percent of academic staff shall be visiting professors, visiting associate professors, visiting assistant professors, visiting lecturers, professors, associate professors, assistant professors and lecturers, who have been constantly employed in an academic positions in any of accredited universities in countries of the European Union, European Economic Area or Organisation for Economic Co-operation and Development at least for one year in the previous five years. The mobility dynamics of foreign visiting assistant professors in the study direction changes every year and tends to grow stably – from 4% in academic year 2013/2014 to more than 20% in academic year 2018/2019.



**Figure:** *Ingoing mobility during the reported period*

Most teaching staff came from Lithuania (28 times), followed by the Czech Republic (11 times) and Germany (10 times). Reoccurrence of countries is natural, because successful cooperation is often established with specific universities. These are, for example, Vilnius Gediminas University of Technology in Lithuania, Münster University in Germany. The map does not include the United States (1 teaching visit), Kazakhstan (1), Cuba (2), Georgia (3).





**Figure: Incoming mobility**

Bureaucratic burden in conclusion of contracts of staff can be mentioned as a restrictive factor in the attraction of new visiting lecturers. Financial aspects tend to restrict cooperation, this is directly reflected in the list of countries of visiting lecturers – mostly in the European Union. Much more funding is necessary to attract academic staff from world's leading universities.

Professionalism and competence of the academic staff involved in the implementation of the study direction and programmes is high for the implementation of qualitative study programmes and is constantly improved.

Not only academic staff of the study direction, but also Latvian industry professionals and foreign visiting lecturers reading lectures in person and using videoconferencing technologies are involved in the study process.

### **3.7. Assessment of the support available for the students, including the support provided during the study process, as well as career and psychological support by specifying the support to be provided to specific student groups (for instance, students from abroad, part-time students, distance-learning students, students with special needs, etc.).**

RTU Career Support and Services Unit provides students with a wide range of career and psychological support services.

#### **Career development support involves:**

For prospective students:

- consultation on study programme selection;
- consultation on study selection and skills profiling;

- career choice seminars within RTU Open Days and upon request;

#### For existing students:

- regular seminars and individual consultations on the development of career
- management skills, writing CVs and cover letters, job interview process;
- seminars on the development of entrepreneurial skills;
- project "RTU Golden Fund" to honour the best graduates and to promote new opportunities in the labour market; o student summer camps for the development of career management and social skills and competences; o online resource <https://ekarjera.rtu.lv/>;
- an annual career day aimed at informing students majoring in engineering, natural and social sciences about the best and leading companies in the respective fields, and bringing them closer to potential partner companies for undertaking internship and employers.

#### **Psychological support involves:**

- individual consultations and support in case of difficulties with studies (time planning, lack of motivation, social anxiety, adaptation difficulties) and individual psychologist consultations on personal issues and difficulties (including crisis intervention);

#### Seminars and workshops on the following topics:

- adaptation events for first-year students - informative classes within the study course "Introduction to Study Field", seminars on the development of learning and communication skills;
- stress management methods;
- time planning methods; o self-motivation;
- emotion management and development of emotional intelligence;
- public speaking skills.

#### **Support is differentiated by the target groups (<http://karjera.rtu.lv/>):**

- prospective students (secondary school pupils, vocational school graduates, other prospective students): consultations concerning the studies are available, including skills diagnostics;
- first-year students: informative classes within the framework of the study course "Introduction to Study Field"; seminars on the development of learning skills; information letters on career and psychologist support opportunities; individual career and psychologist consultations; and other activities in cooperation with businesses and non-governmental organizations;
- all RTU students: individual career and psychologist consultations, seminars and classes, guest lectures, RTU Career Day;
- foreign students (Erasmus+ mobility and full-time): individual and career support consultations are available in English; wherever possible, seminars and classes are conducted in English, such as seminars on writing CVs and cover letters, time management;
- students with special needs: psychological and career support consultations are provided upon request; physical access to the room; opportunity to come with one's mentor or interpreter.
- graduates: career support consultations are provided if necessary; consultations on writing CVs and cover letters, job interview process, career opportunities.
- staff: consultations on work and study related issues are provided to RTU academic and general staff members, if necessary.

In 2014, the Student Services Center was opened in Kipsala campus. It provides day-to-day support

under the supervision of the Career Support and Services Unit:

- provides answers to various questions that students may have;
- provides printing, copying and binding services;
- issues identification cards;
- draws up references, if necessary.

More information is available at: <https://www.rtu.lv/lv/studijas/pakalpojumi/studentu-servisa-centrs>.

RTU International Cooperation and Foreign Students Department has academic consultants who consult foreign students on studies and practical issues. Academic consultants keep track of the students' academic performance and attendance, as well as meet students on a regular basis to make sure their studies are successful, both in and outside the classroom. Shortly after the arrival of students, academic seminars are held, which are compulsory for all new students. Academic seminars are held approximately twice a week at the beginning of each semester, in line with the student influx. During these seminars, academic consultants introduce students to RTU internal rules, their responsibilities and rights, academic integrity, and various other practical aspects. In the future, it is planned to divide the students into groups according to the study programs and to involve the heads of the study programme in the seminars so that the students would get acquainted with the management of the programme in due time. If during the semester a student is observed to face difficulties with the study process (attendance, academic arrears), the student is invited to an individual meeting with his/her academic consultant to discuss the best possible solutions to the problem. Each academic consultant has to arrange meetings with 2-5 students per week. After a month, students are invited to the meeting again to discuss their progress and make sure the situation has improved.

At RTU International Cooperation and Foreign Students Department, students have a contact person for facilitating the immigration process. The contact person organizes immigration seminars and document examination at the beginning of the semester. The Department arranges an appointment for students with the Office of Citizenship and Migration Affairs of the Republic of Latvia.

The RTU **FEEM Information and Service Centre** was established in 2015, which helps to improve student service at the faculty, as well as to improve the general image of the faculty and RTU. The centre provides the following services: copying, printing of documents; issuing of keys (for study and common use audiences), storage of the first aid kit, advising students, guests, providing and placing of information (on message boards in faculty rooms, on faculty website and in other media).

The **FEEM Division of Continuing Education** (DCE) provides the possibility to study business and management study programmes of different levels. The contemporary dynamic and changing world forces any of us constantly educate and improve to achieve own goals. Therefore, part-time (extramural or evening) studies are one of the tools helping to achieve goals, professional and personal growth, offering qualitative, intensive, creative and exciting study process, which can be combined with work. DCE offers study forms that are more convenient for working students – part-time studies – intramural and extramural, studies on Saturdays or in the evening on working days. In addition to formal studies, DCE has been organising different courses related to business, management, finances and other similar areas for several years.

The **building** of the Faculty of Engineering Economics and Management at Kalnciema Street 6 **is adapted to persons with reduced mobility** to promote and ensure the availability of higher education and free access to all students and visitors with reduced mobility:

- access to the building through the basement floor and a road fit for a wheelchair;
- there is an elevator in the building;

- bathrooms specifically equipped for persons with reduced mobility;
- auditorium number near the door 1300 - 1800 mm from the floor.
- the width of doors in auditoriums are appropriate;
- easy access to the canteen.

The Faculty of Engineering Economics and Management currently (in the accreditation period) has three students with reduced mobility:

- Professional Bachelor's study programme "Economics", study form part-time (extramural);
- Professional Master's study programme "Urban and Regional Engineering Economics", study form full-time (intramural);
- Professional Master's study programme "Civil Engineering and Real Estate Management", study form full-time (intramural).

Every year the FEEM Student Self-Government organises different student support, motivation and involvement activities. The following activities were organised in academic year 2018/2019:

- The annual **"EKU Fest"** event organised by FEEM SP or a camp for first-year students was organised in August 2018. Its purpose was to enable new students to learn about RTU and FEEM, meet their future course mates and students of other study programmes, to meet teaching staff, who have come as visiting lecturers.
- The erudition contest **"I am Latvian"** was organised in November 2018 to honour the centennial anniversary of Latvia. The novelty of this year is a travelling cup, which is received by the programme, which wins the erudition contest. Each Bachelor's study programme of the faculty had its team, and they competed among themselves for the title of the most Latvian team. Well-known Latvian people Māra Upmane-Holšteine and Mārtiņš Rītiņš asked questions in the form of videos.
- In November 2018, there was the **"EKU GIGA Inspiration Week"**, during which students had an opportunity to meet people known in Latvia to hear their experience stories, get inspired and gain motivation for studies and personal life. The event was attended by students of senior years and first-year students, for whom this was one of the first non-formal lectures. Guests of the week - Rainers Helds, Arturs Mednis, Mārtiņš Staķis, Gints Andžāns, Valdis Melderis.
- "Office romance" is a project organised in the spirit of the Valentine's Day. The event was organised together with FCSIT SP and FCE SP, it was held in the club "Četri balti krekli" on 15 February 2019. RTU students can fill a questionnaire and be selected as participants of the event. 25 pairs were created, who participated in the event by fulfilling different romantic and attractive tasks. A total of 88 students applied for the event.

This year, the orientation competition **"Scavenger Hunt"** changed its name to "Scamper" and was organised jointly with RTU FPEE SP at the end of April 2019. The purpose of the event was to unite the essence of orientation competition with the use of academic knowledge in tasks. Teams of participants received details at checkpoints, and the last task was to create a machine that can ride. Cooperation with JAUDA energy company was established. Prizes from Sigulda Adventures, VEF, MyFitness, ISOSTAR, Tarzāns, RedBull, LEDUS OGA, Ezītis miglā were prepared for participants.

## II - Description of the Study Direction (4. Scientific Research and Artistic Creation)

### 4.1. Description and assessment of the directions of scientific research and/or artistic

**creation in the study direction, their compliance with the aims of the higher education institution/ college and the study direction, and the development level of scientific research and artistic creation (provide a separate description of the role of the doctoral study programmes, if applicable).**

It is a requirement of RTU that academic staff are actively involved in research apart from their involvement in the study process. Professors and associate professors are re-evaluated and re-elected every six years. Candidates are obliged to comply with certain criteria in terms of scientific research, i.e., number of publications or patents, supervised Doctoral candidates, etc. (Decision of RTU Senate No. 594 "On RTU Regulation regarding the Approval of the New Edition of Procedure of Electing Professors and Associate Professors" as of 30 November 2015). In order to be allowed to supervise Doctoral students, the academic staff have to be approved experts in their fields, which is possible only if criteria regarding the number of publications/patents are met (decision of RTU Senate No. 602 "On Amendments to RTU Regulation on Doctorate" as of 26 September 2016). Approval process for the experts is organized by the Latvian Council of Science. The database of the experts is published in the National Research Information System (NRIS; <http://sciencelatvia.lv>).

Every year, the Rector and faculty deans sign agreements by which each faculty undertakes to achieve certain key performance indicators, many of which are based on research output, e.g., the number of publications/patents, obtained research project funding, etc. Achievement of these indicators has an impact on financing received by the faculty from the so-called performance-based funds.

RTU Research Support Fund (decision of RTU Senate No. 585 "RTU Regulation of Research Support Fund" as of 15 December 2014) aims at providing financial support for various research related activities, such as support for maintenance of research equipment, protection and licensing of intellectual property, covering of expenses related to the Doctoral study process, publishing of scientific journals, participation and organization of scientific conferences, support to researchers in establishing new laboratories in a prospective research field. The Research Support Fund is an instrument to support research activities, which foster the development of the strategically important research fields.

Six research platforms in the main strategic research areas of RTU were established in 2013 as an instrument for fostering inter-disciplinary and inter-faculty cooperation of researchers in the areas of importance for industry and society. These platforms are as follows: "Energy and Environment", "Cities and Development", "Information and Communication Technologies", "Transport", "Materials, Processes and Technologies", "Security and Defense". Each platform has a dedicated coordinator and they comprise the Council of Coordinators responsible for implementing the activities within platforms. The Council is supervised by the Office of Vice-Rector for Research (Decision of RTU Senate No. 600 "On Approval of the Regulation of the Council of Coordinators of Research Platforms at Riga Technical University" as of 23 May 2016). Similar to the faculties, the platforms have the Research Program (Decision of RTU Senate No. 590 "On Authorization to Approve RTU Research Program by RTU Scientific Council" as of 27 May 2015; "Research Program of Riga Technical University 2016-2020"), annual action plan and dedicated funding from the Research Support Fund. Internal project calls within the platforms are organized every year, allocating 90-120 thousand EUR in total to six projects selected on a competitive basis. A mandatory requirement for the projects is a minimum 20% industry co-financing and participation of more than one faculty. In the period of 2016-2018, 33 projects were supported and nearly 275 thousand EUR of funding was

allocated to the projects. Regular series of seminars and visits to companies are also organized by the research platforms to stimulate networking and cooperation with industry.

Efficiency of these mechanisms can be illustrated by growth of SCOPUS indexed publications in the period of 2013–2018. The total number of the publications increased from approximately 440 publications per year in 2013 to 750 in 2018. Number of SCOPUS publications per researcher (expressed in full-time-equivalent (FTE)) increased from circa 0.9 in 2013 to circa 1.5 publications/FTE per year in 2018 (the data were obtained from Elsevier “SciVal” database on 17 June 2019).

Research and artistic creation of academic staff of the study direction “Management and Administration, Real Estate Management” takes place at FEEM ensuring academic freedom, in accordance with strategic goals of RTU and FEEM and the direction of scientific activity of academic staff at the RTU FEEM institute and department or RBS.

FEEM currently includes 5 institutes conducting research. All the FEEM institutes are unique in their field and participate in the implementation of the study direction “Management and Administration, Real Estate Management”. Each of them uses in its work and introduces the latest management theories and principles, which are also reflected in the scientific papers and projects developed by the institutes, as well as the doctoral theses developed by doctoral students.

Scientific activity and research at FEEM are closely related to its study directions and study programmes. FEEM research is based on the following research directions:

- Business development and innovation,
- Civil engineering, real estate, urban environment and territories,
- Organizational and national security,
- Quality management of processes, products and systems,
- Development of economical and mathematical models.

RBS academic staff actively participates in scientific and advisory work. In recent years, main areas of research work of RBS have been advanced mathematics and business statistics, macroeconomics and labour force policy, financial management and risk, project management and information technology, leadership and organisational psychology, strategic management.

Students of the doctors study programme conduct important fundamental and applied research during their studies, the results of which have a serious impact on the development of the sector. During studies, all RTU FEEM doctoral students are involved in some scientific research, often as leading project performers. Teaching staff and students within the direction are involved in the implementation of several projects of the Latvian Academy of Sciences and/or the Latvian Scientific Council, projects funded by the European Union are also implemented (Erasmus+, Norwegian financial instrument, etc.). For more information about the projects see: <https://www.rtu.lv/lv/ievf/zinatne-ievf/projekti-1>

Teaching staff of the doctoral study programme also works in the Doctoral Council and in Doctoral Councils of other universities as reviewers, e.g., University of Latvia, Latvia University of Life Sciences and Technologies, *Vilnius Gediminas Technical University (Lithuania)*, *Brno University of Technology* (Czech Republic), *Mykolas Romeris University* (Lithuania). For additional information on the doctoral study programme and its significance see Part III of the description of the doctoral study programme “Management Science and Economics”.

#### **4.2. The relation between scientific research and/or artistic creation and the study**



**process, including the description and assessment of the use of the outcomes in the study process.**

RTU Research program 2016-2020 (pp.247, 250) determines **the aims of the Faculty (FEEM)** - ensuring high quality both in the study process and in research, internationalization, ensuring efficient operation of FEEM in all areas of the Faculty's activities, successful innovative and commercial activities. A new strategy for the future period is currently being developed.

The **FEEM vision** is to be recognized as an international level centre of excellence in research and studies with a local and global impact in the fields of engineering economics, management engineering, security, innovation and technology transfer, based on our researchers, graduates, research and strategic partnerships.

FEEM has defined **5 main strategic areas** underpinning long-term **research goals**:

- **to increase the number of high quality and internationally recognized researchers.**  
In the next planning period, FEEM should reach at least 66 elected researchers with average age of 44, by providing a stimulating environment for researchers after completing their academic or doctoral studies, establishing and maintaining a research partnership,
- **to ensure internationally recognized research process** measured by a growing number of publications, research projects, conferences,
- **to provide effective research infrastructure** by investments in the development of high-quality research infrastructure and providing comprehensive resources for research;
- **to ensure sustainable innovations, commercialization and technology transfer to economy** by to promoting transfer of interdisciplinary knowledge and technologies, establishing and maintaining a research partnership, KPIs in terms of established start-ups and attracted industry research funding;
- to improve internal and external communication and cooperation.

All above mentioned research goals are oriented towards fostering **good research, its linkage and integration to the academic studies, as well as helping early-career researchers** to make their way into the profession.

**The interdisciplinary role of research** is ensured by engaging in the work of **RTU Research Platforms** which aim to provide inter-faculty, interdisciplinary research in areas of importance to the national economy and society. Research platforms are a cooperation coordination mechanism whose task is to analyse the needs of companies and various public institutions in order to define prospective research directions in line with RTU competencies, to organize relevant internal project competitions, applications for international projects, cooperation with companies and public institutions.

The link of scientific research to the study process is ensured using potential knowledge transfer principles and continuous improvement of competences, which manifest in integration of research results in study courses and study process, involvement of students in research, familiarising of students with latest research results, enabling them to conduct research work independently or in cooperation (team work). The link of science and research to the study process is ensured also by involving visiting lecturers in lectures and practical classes, active participation of students in international conferences and seminars, preparation of international scientific publications and participation in international cooperation research projects.

Currently **all scientific directions and linkage to the study process of the Faculty** are

implemented by **five FEEM institutes and their stuff**: (1) International Business and Customs Institute ([SESMI](#)), (2) Institute of Business Engineering and Management ([UIVI](#)), (3) Institute of the Civil Engineering and Real Estate Economics ([BUNII](#)), (4) Institute for Occupational Safety and Civil Defense ([DCAI](#)), (5) Institute for Quality Engineering ([RKI](#)).

**FEEM involves students in research** thus developing their research skills throughout studies, at the same time fostering student development into young researchers. For example, the Erasmus+ project “Pub - Wood” involves the 1st and 2nd year students of the Bachelor's professional study programme “Real Estate Management” (BUNI), which carried out the study “Wood, Wooden Buildings: Problems and Solutions” in the autumn of 2018. The five best researches, which were developed in 2018, will be presented to students at international universities involved in the project at Coventry University (UK).

In 2008 the Faculty became a member of **Principles for Responsible Management Education (PRME)**, which means constantly **improving the academic environment to meet the global challenges**. The Faculty puts forward the mission of PRME to **inspire and champion responsible management education, research and thought leadership globally**. <http://www.unprme.org/participants/view-participants.php?partid=413>. Scientific personnel of FEEM actively participate in various **working groups, seminars and lectures** held by associations and governmental and NGOs.

**The Lab (open access prototyping space)** premises of FEEM are open not only for students, but for all other visitors. This promotes interest in science to a wider society. **Open door days, shadow days, thematic lectures and workshops for students** are also organized by FEEM every year. **Growing number of Start-ups** provides a new job generation for society.

The efficiency of the link between scientific research and the study process is confirmed by the fulfilment of the targets and outcome indicators set by the faculty and their growing dynamics. Thus, for instance, an increase in the number of publications of students has been observed every year since 2015 (104 publications of abstracts at the RTU scientific conference for students in 2016, and 152 in 2018), elements of research were included in about 10% of courses in study programmes in 2013 and in about 40% of courses in 2019.

On 10 May 2016, a Scientific Committee (No. 22000-2/57) was created within FEEM, which analyses at least twice a year how scientific research results are integrated in study courses, thus ensuring a continuous increase in study course with updated research results.

The **efficiency of the link** between scientific research and the study process is characterised by the results of the SWOT analysis of scientific activity:

**Internal strengths**: high quality research and studies are being implemented; a relatively **quick decision-making**, well organized and cohesive faculty management structure; the **development of new research talents**. FEEM engages students in research thus developing their research skills during the studies, at the same fostering their development as young scientists; **extensive opportunities** for researchers, academic staff and students **to participate in international scientific conferences** and seminars; **diverse contacts and cooperation** with foreign universities and research institutes; a **profound experience of the academic and scientific staff**; a **significant investment of EU funds** in the development of academic and scientific staff and doctoral students' competences; **cooperation agreements** with foreign universities to promote scientific development.

**External opportunities**: a **more intensive involvement of masters and doctors** in local and global research projects; **developing closer cooperation** with industry professionals and enterprises using case studies in master's theses; **to promote the development of new ideas**



**and products** on a local and global scale, **offering study subjects** that develop appropriate skills; **an increasing number of academic and research staff (including PhDs, PostDocs) through direct access to excellent students** of the FEEM study programs.

On integration of the results of scientific research in the study process see Paragraph 4.5 on the involvement of students in scientific research.

FEEM structure is organized by research areas and consists of 5 complementary institutes. The integration of research results is organized through 5 main research directions: (1) business development and innovation, (2) civil engineering, real estate, urban environment and territories, (3) organizational and national security, (4) quality management of processes, (5) economic – mathematical and statistical models. FEEM researchers conduct studies and provide the integration into process of academic studies. The studies are related to the development, maintenance and improvement of complex manufacturing and engineering systems or science-intensive products, covering interdisciplinary areas such as engineering economics, quality technologies, innovation technologies, systems engineering, logistics, system dynamics, econometrics, etc.

#### **Some of the most important research results that are integrated into academic studies:**

- **Interdisciplinary research on social innovation** was conducted by integrating approaches and research methods from the fields of economics, management, finance and education within the research project “Involvement of the society in social innovation for providing sustainable development of Latvia” (2014-2018, National Research Programme “EKOSOC-LV”). This research creates a base for understanding different aspects of social innovation, its promoting and hindering factors, and scenarios of its development in The outcomes are analysed in the scientific monograph “Social Innovation: Challenges and Solutions in Latvia”, scientific editor K. Oganisjana.
- **Models for achieving sustainable shareholder returns at the lowered risk level** were elaborated and tested within two research projects: “Enhancing Latvian Citizens’ Securitability through Development of the Financial Literacy” (2013-2016) and “The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy” (2014-2018). A methodology for determining the Total Factor Productivity (TFD) was elaborated in order to enable private investors to take weighed investment decisions providing the promotion of general and key
- **Within the framework of EU LLP Leonardo da Vinci Transfer of Innovation programme**, a project “Employability and Skills Anticipation Policies: a Social ROI Approach” was ongoing in FEEM until 2014. The main project’s results are:
  - active employment and training policies, employability skills and VET activities to assure adequate competences of the labour market, also strategies and methodologies were analysed;
  - methodology and a guide to social return on investment was developed in order to measure the return on investment of active employment and VET policies and promoting the involvement of stakeholders in the analysis of present and future skills needed by the labour market, within a local/regional framework and sectoral perspective;
  - a synthesis of project case studies “Sustainable Committees of Stakeholders” was developed promoting the reflection about recognition of employability skills and dissemination products at European/national/local level;
  - research and analysis of new qualifications and market demands was.

- In the field of development of economic - **mathematical and statistical models the Macro-Econometric Model** for the Latvian Economy was
- In **urban planning**, within INTERREG projects “Coast4us” innovative, comprehensive and local needs-based planning approach to the development of marine and coastal areas in Finland, Latvia, Sweden and Estonia was developed. All levels – villagers, municipalities, the Ministry of Environmental Protection and Regional Development and the University – were involved, the results of activities were summarised and included in the proposals for local/village planning in Latvia as well as in the Baltic States.

FEEM is among leaders at RTU in the **development of spin-off companies** where researchers and graduates continue successful development of both scientific and economically successful outcomes (see some in table below) that create an impact on the national economy, society and culture.

**Some recently funded commercialisation projects of the research by involving students:**

Source of funding	Name of the project	Execution time	Allocated funds (euros)
Private funding	DCAI realized basic professional development programs for commercialization such as: "Fire Safety and Protection - 160 Hours", "Work Safety and Security - 60 Hours", "Electrical Safety category: A, Bz, B, Cz and C" and commercialized expert consulting services. (Courses managers: J.Bērziņš, V.Jemeljanovs, V.Ziemelis)	2014 – 2018	11046
Private and Latvian Investment and Development Agency funding	Company “ <i>Trakais Rotors</i> ” <a href="http://www.crazyroller.eu">www.crazyroller.eu</a> , established in 2008 by <a href="#">Roberts Brivlauks</a> , the graduate of FEEM, got financial support for exploring export market. The business idea for “ <i>Trakais Rotors</i> ” was developed, and prototype was created during studies at the MBA program “Innovation and Entrepreneurship”.	2016, 2017, 2018	6000
Altum, Imprimature, EU Structural Funds, EEZ funding	Start-ups “ <i>PlayGineering</i> ” and “ <i>PlayGineering Systems</i> ”, established in 2011 by <a href="#">Ričards Fomrats</a> , the graduate of FEEM. The business idea was developed during studies at the MBA program “Innovation and Entrepreneurship”.	2016 – 2018	600000
Private funding	Start-up <i>Water2Snow</i> <a href="https://www.water2snow.lv/">https://www.water2snow.lv/</a> was co-founded by <a href="#">Aija Ambrasa</a> the graduate of FEEM. The business idea for <i>Water2Snow</i> was developed during studies at the MBA program “Innovation and Entrepreneurship”.	2016 – present	

Riga Technical University funding	<u>Vita Brakovska</u> , the graduate of FEEM, organizes Simulation Fairs (Simulācijas tirgus) where students present their products to business experts (yearly event ongoing since 2013). More than 60 teams presented their ideas to more than 60 experts that represented different sectors and have benefited by impulses received during the participation in the Simulation Fair, incl. Coffee Tower, Brigita Stroda, Brands PIKU, Šmita Lampas and others.	Founded in 2013	1200
Private funding	Start-up “ <i>Wood Design Workshop</i> ” was established <u>Vita Brakovska</u> , the graduate of FEEM.	2018 – present	
Riga Technical University funding	Development of prototypes according to the needs of the Children’s Clinical University Hospital in Riga. The following prototypes have been developed by students of the MBA program “Innovation and Entrepreneurship” under supervision of <u>professor E. Gaile-Sarkane</u> : 1) Change of design of medical equipment in order to make it children-friendly; 2) Development of a toy to reduce stress of children in the hospital “ <i>Hug me and I hug you</i> ”; 3) Design of interactive wall mounted game for different patients (children); Development of www application <i>dr.Buddy</i> , to provide real time information to children’s parents and medical personnel in the ambulance.	October 2018 – April 2019	4480

**Close collaboration with the industry, business entities**, associations (active membership in more than 30) and other industry stakeholders helps FEEM to develop the most suitable **solutions in study process and new research directions**. Annually more than 20 new agreements on cooperation are signed.

**Since 2014** there has been a **growing number** of **spin-offs** and start-ups **developed by FEEM students and graduates**. In 2018 total number exceeded 250 companies.

During all study years **FEEM encourages bachelor, master and PhD students for active involvement in research**, to foster interaction with research staff and actively enters scientific research activities. For example, from 2013 to in 2018 several 27 industry and sectoral public partners supported researches were conducted by involvement of 325 bachelors, 112 master and 31 doctoral students from all study programmes of the study direction. Research was conducted for the total amount of EUR 42,274.00 and involved companies and other industry partners, for example, JSC “Dobeles Dzirnavnieks”, “MAXIMA Latvija” Ltd., “Ventspils nafta terminals, JSC “Inspecta Latvia”, “Rīgas Namu pārvaldnieks”, “Rīgas Arhitektu birojs” Ltd., State Audit Office, Ministry of Economics, Ministry of Finance, Latvian Real Estate Business association “LANĪDA” and so on.

**4.3. Description and assessment of the international cooperation in the field of scientific research and/or artistic creation by specifying any joint projects, researches, etc. Specify those study programmes, which benefit from this cooperation. Specify the future plans for the development of international cooperation in the field of scientific research and/or artistic creation.**

The most important forms of implementation of scientific and research works are conducting research ordered by the state, participation in international projects, scientific publications, participation and reporting at international and local conferences. Taking into account that research in the field of business management, in essence, mainly is applied research, part of research of the direction also belongs to this group. Since the study direction focuses on the so-called approbation of international knowledge in Latvia, then special attention is devoted to international publications and participation in international conferences.

Most important projects within the study direction in the reporting period:

**National Research Program Projects:**

1. **National Research Program 2.** "Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community EKOSOC-LV". (2014 – 2018), Ministry of Education and Science No. 02.2-09/13. Website: [http://www.lza.lv/index.php?option=com\\_content&task=view&id=2489&Itemid=451](http://www.lza.lv/index.php?option=com_content&task=view&id=2489&Itemid=451)

**Projects:**

- 5.2.1. "Explore the Competitiveness of Latvian Enterprises in Foreign Markets and Make Proposals for its Strengthening;
- 5.2.2. „ The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy”;
- 5.2.7. „ Involvement of the society in social innovation for providing sustainable development of Latvia”.

**Project partners:** University of Latvia, Riga Stradiņš University, Ventspils University of Applied Sciences, SSE Riga.

On 21 March 2018, the opening event devoted to the EKOSOC-LV monograph of the national research programme (NRP) "Over one hundred. Smart Latvia" was held at the Latvian Academy of Sciences (LAS). The monograph has been prepared by composite authors based on research conducted within 10 projects in 2014-2017, which were included in axis 5 of 6 priority axes of fundamental and applied research approved for that time period: sustainable development of the state and society (society, governance, resources, national economy, demography, environment). RTU FEEM participated in the implementation of three subprojects in the National research programme EKOSOC-LV (5.2.1 "Transformation of national economy, smart growth, management and legal framework for the sustainable development of state and society - new approaches for creating a sustainable knowledge society (EKOSOC-LV)):

2. **Enhancing Latvian Citizen`s Securability through Development of the Financial** Latvian Council of Science fundamental and applied research grant project. Nr. 394/2012 (01.02.2013.-31.12.2016). Website: <https://www.rtu.lv/en/feem/for-researchers/projects-1/national-projects/national-research-projects>

**Project partners:** The main partner for implementing the research results are Financial and Capital Market Commission, Association of Financial Industry, Nasdaq Baltic and Bank of Latvia (fi- nansupratiba.lv)

#### **International programmes:**

3. **Border Management Programme in Central Asia** - (BOMCA 9). Phase Agreement No. DCI- ASIE/2015/358-348. Consortium agreement No. 03000-3.2.2/22 (15/06/2015-14/06/2018). Website: [www.bomca-eu.org](http://www.bomca-eu.org)

**Project partners:** State Border Guard of Latvia, Customs Department under the Ministry of Finance of the Republic of Lithuania, Food and Veterinary Service of the Ministry of Agriculture of Latvia, State Revenue Service of the Republic of Latvia and International Centre for Migration Policy Development. Associate partners: Immigration and Border Service of Portugal, Ministry of Interior of Hungary.

4. **Supply Chain Security**. LATVIAN - SWISS Cooperation Programme, (2014-2015) Website: <http://www.swiss-contribution.lv/page/17>

**Project partners:** Cross-border Research Association (CBRA) (Switzerland), Project promoter/ Responsible ministry: State Education Development Agency (Latvia).

#### **INTERREG:**

5. Central Baltic Programme 2014-2020, INTERREG CB627. (01.01.2018 – 30.09.2020). Website: <http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en>

**Project partners:** County Administrative Board of Östergötland (Leading partner), Latvian Ministry of Environmental protection and Regional Development (Latvia); Carnikava Municipality (Latvia); Saulkrasti Municipality (Latvia); Salacgriva Municipality (Latvia); Norrköping Municipality (Sweden); Valdemarsvik Municipality (Sweden); University of Linköping (Sweden); Coompanion Östergötland (Sweden); Aspöja Fastigheter AB (Sweden); Government of Åland (Sweden); Kökar Municipality (Sweden); Tallinn University of Technology (Estonia); Laane- Saare Municipality (Estonia); Pihla Municipality (Estonia); Põide Municipality (Estonia).

6. **MICROPOL – Smart Work Centres in Non-Metropolitan Areas**. European Territorial Cooperation Programme INTERREG IVC project. (01/01/2012 – 31/12/2014). Website: <http://mi-cropol-interreg.eu>

**Project partners:** North Denmark Region (Denmark), Province of Drenthe (Netherlands), Inter- municipality Association from Chiva to Utiel (Spain), West Transdanubian Regional Development Agency Non-profit Limited Liability (Hungary), BSC, Business Support Centre Ltd, Kranj (Slovenia), Northumberland County Council (United Kingdom), Municipality of Teramo (Italy), Public Foundation for the Development of Industry (Hungary), NIVERLAN (France), Estonia Advice Centres (Estonia).

#### **European Economic Area (EEA) and Norway Grants project:**

7. **EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia**. European Economic Area (EEA) and Norway Grants (01/06/2015 – 28/02/2017). Website: <http://transfer.rtu.lv>

**Project partners:** University of Latvia (Latvia), Nordic Institute for Studies in Innovation Research and Education (Norway), Stockholm School of Economics in Riga (Latvia).

#### **ERASMUS+ research projects:**

8. **Augmenting academic entrepreneurial training methodology, international students' entrepreneurship community, and fundamental entrepreneurial university network. (International Entrepreneurial Community Development through Academia - Good Practices).** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Strategic Partnerships for higher education KA203 Program project No. 2018-1-LV01-KA203- 046974 (01/09/2018 – 31/08/2021). Website: <http://www.goodpractices.eu/>  
  
**Project partners:** Anglia Ruskin University (United Kingdom), South-Eastern Finland University of Applied Sciences (Finland), Hogeschool Rotterdam (Netherlands)
9. **Improving Management Competences on Excellence Based Stress Avoidance and Working Towards Sustainable Organizational Development in Europe (IMPRESS).** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Knowledge Alliances Program project No.588315-EPP-1-2017-ES-EPPKA2-KA (01/11/2017 – 31/10/2020). Website: [excellence-in-stress-management.eu](http://excellence-in-stress-management.eu)  
  
**Project partners:** NGO Euskal Herriko Elektroniketa Informazio (GAIA) (Leading partner, Spain); University of Barcelona (Spain); Ludwig-Maximilians-Universität München (Germany); IBK Management Solutions, Wiesbaden (Germany); International Industrial Consult, Frankfurt am Main (Germany); Biedriba Eurofortis (BEFO) (Latvia); Mutualia Mutua Colaboradora con la Seguridad Social Nº 2, Bilbao (Spain); Waterford Chamber of Commerce (Ireland); Riga East University Hospital (Latvia).
10. **Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood).** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Strategic Partnerships for higher education KA203 Program project No. 2018-1-LT01-KA203-046963. (01/09/2018 – 31/08/2020) Website: <http://buni.rtu.lv/erasmus/?lang=en>  
  
**Project partners:** Vilnius Gediminas Technical University (Lithuania), VIA University College (Denmark), Coventry University (United Kingdom), Häme University of Applied Sciences (Finland), Lithuanian State Enterprise Centre of Registers and Study and Consulting Centre.
11. **Innovative strategic partnership for European higher education – ISPEHE.** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Strategic Partnership project No.: 2014-1-MK01-KA203-000275. (01/01/2015 – 31/12/2016) Website: <http://ispehe.org/>  
  
**Project partners:** Integrated Business Institute in Skopje (Project coordinator, F.R. of Macedonia), University of Pavia (Italy), University of Ljubljana (Slovenia), University College of Economics and Culture (Latvia).
12. **Coaches of SMEs: 5POINTS Trainings.** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Strategic Partnership project No.: 2014-1-TR01-KA202-013033. (01/12/2014 – 31/08/2016). Website: [5pointsproject.org](http://5pointsproject.org)  
  
**Project partners:** Ondokuz Mayıs University (Turkey), Gazi University (Turkey), Mugla Sıtkı Kocman University (Turkey), Selçuk University (Turkey), Samsun Young Businessman Association (Turkey), Fundación Fundecyt Parque Científico y Tecnológico de Extremadura (Spain), Trusted Business Partners Kft (Hungary), Pirkanmaan ammattikorkeakoulu Ltd. (Finland).
13. **Employability and Skills Anticipation Policies: a Social ROI Approach.** Lifelong Learning Programme Transfer of Innovation, Multilateral Projects, Leonardo da Vinci project, No.: 2011- 1-PT1-LEO05-08605. (01/09/2012 – 25/04/2014). Website: <https://crcvirtual.iefp.pt/projetos/global-return-employability-and-skills-anticipation-policies->

**Project partners:** Câmara Municipal de Loures (Leading partner, Loures, Portugal), Universidade Católica Portuguesa Centro de Estudos dos Povos e Culturas de Expressão Portuguesa (Portugal), Centro de Formação Profissional para o Comércio e Afins – CECO (Portugal), Fundación Metal (Spain), Tempo Training & Consulting a.s. – TEMPO, (Czech Republic), SROI Network – Social Return on Investment Network Ltd. (United Kingdom).

14. **Developing and enhancing leadership skills for young managers in times of crisis: an innovative training package for European young professionals (Young Leaders).** Lifelong Learning Programme Transfer of Innovation, Multilateral Projects, Leonardo da Vinci project, No.: 2012-1-CY1-LEO05-02319. (01/10/2012 – 01/04/2014) Website: <https://docplayer.net/10645335-Developing-and-enhancing-leadership-skills-for-young-managers-in-times-of-crisis-an-innovative-training-package-for-european-young-professionals.html>

**Project partners:** GrantXpert Consulting (Cyprus), Department of Communication, Media and Culture, Panteion University (Greece), Dias Publishing Group (Cyprus), Kaunas University of Technology (Lithuania), National Association of Small and Medium size Business (Bulgaria), Institute for socio-scientific consultancy (Germany).

#### **European Regional Development Fund (ERDF) projects in cooperation with other RTU faculties:**

15. **BUNI** as a leader of Scientific Research Group of Project Work Package Research in Sub activity of **The Development and Design of Engineering Economic Indicator System for Nanotechnology Industry Product** Responsible for resources and results management in research work group, responsible for the scientific results in WP. Development of multifunctional nanocoatings for aviation and space techniques constructive parts protection (2013. – 2015). ERDF: Project 1.1.1 "Development of Science and Research Potential" of the Priority 1.1 "Higher Education and Science" of the Addendum to the Operational Program "Human Resources and Employment" Activity 1.1.1.2 "Attracting Human Resources to Science" 2013/0013/1DP/1.1.1.2.0/13/APIA/VIAA/027. Website: <http://buni.rtu.lv/projects/?lang=en>
16. **BUNI** participation in EVIIT. **Establishment of RTU Scientific Research Laboratory of the Civil Engineering Management and Real Estate.** Establishment of the National Significance Research Centre for Production of Energy and Environmental Resources, and Technology of Sustainable (including the development of the Transport and Mechanical Engineering Center). ERDF: Operational Program for Entrepreneurship and Innovation (2007 – 2013), 1. Priority "Science and Innovation", Measure, 2.1.1 "Science, Research and Development", Activity 2.1.1.3 "Development of Science and Research Infrastructure", Sub-activity 2.1.1.3.1 "Development of Science Infrastructure": 2011/0060 / 2DP / 2.1.1.3.1. / 11 / IPIA / VIAA / 007

**Participants:** Riga Technical University, University of Latvia, University of Latvia, Institute of Biology, University of Latvia, Institute of Physical Energy. Website: <https://projekti.rtu.lv/external/rtu-projektu-publicitate/ERAF/Aktu%C4%81lie%20projekti/2.php>

17. **COST action CA17125: "Public Value Capture of Increasing Property Values" (PuVaCa).** 160000 EUR. (2018 – 2022) More information available: <https://www.cost.eu/actions/CA17125/#tabs|Name:management-committee>

#### **Post-doctoral research projects:**



18. **A values-led planning approach for sustainable land use and development.** European Regional Development Fund Activity 1.1.1.2 “Post-doctoral research aid” of the specific aid objective 1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational programme “Growth and employment” (No. 1.1.1.2/VIAA/1/16/161). (2017 – 2020).
19. **Impact of public sector reforms on performance management improvement in clinical university hospitals.** European Regional Development Fund Activity 1.1.1.2 “Post-doctoral Re- search Aid” of the Specific Aid Objective 1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the Operational Programme “Growth and Employment” (No.1.1.1.2/VIAA/2/18/330). (2019 – 2021).
20. **The methodology for the commercialization of innovative biomedical devices and the eval- uation of the productions financing** European Regional Development Fund Activity 1.1.1.2 “Post-doctoral Research Aid” of the Specific Aid Objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financ- ing, investing in human resources and infrastructure” of the Operational Programme “Growth and Employment” (No.1.1.1.2/VIAA/2/18/348). (2019 – 2021).

Since 2017, RTU has been involved in the Climate-KIC international project. Simultaneously with the largest cities of the world, RTU Design Factory and the Institute of Environmental Solutions in cooperation with the Investment and Development Agency of Latvia (IDAL) organised Copernicus Climathon 2017, the jury of which included several representatives of the study direction. Climate-KIC is the EU’s largest public-private partnership network which uses innovative approach in addressing climate change challenges and covering all the four priority areas: urban space, land use, manufacturing systems, climate change measurements and finances.

The overall **impact of projects on the study direction** can be identified by evaluating the skills of the students and those involved in scientific research and their work results in the indicated five research directions implemented by the respective institutes (see Section 4.1). In line with the strategic areas identified by the FEEM and RBS and the corresponding long-term research objectives (see Section 4.1), the projects mentioned in the report have resulted in the following: (1) increase in the number of high-quality and internationally recognized researchers who contribute to a research-friendly environment for academic and professional studies as well as promote students’ research skills; (2) the research process is internationally recognized due to the increase in the number of scientific publications, including publications prepared jointly with foreign scientists, cooperation projects and conferences; (3) a more efficient use of high-quality research infrastructure, as it is possible to use the appropriate research resources; (4) sustainable innovation and technology are included in research as transfer of interdisciplinary knowledge and technology is facilitated through the establishment and maintenance of partnerships, and the indicators of attracted funding for start-ups and research are met; and (5) internal and external communication and cooperation are improved, participation in international research networks.

Project results have a significant impact on the study programs as research results and findings are integrated into study courses. The projects mainly involve the academic staff and doctoral students most of whom prepare and lead study courses. Participation in projects allows doctoral students and researchers to provide students and others involved in scientific research with new and up-to-date knowledge. It helps to develop the ability to independently and critically analyse the results of the projects and the developed solutions which can be used in the respective fields of research to



solve important tasks and to create and manage independent projects.

For example, the intermediate results of the current post-doctoral research project (2017 – 2020) “A values-led planning approach for sustainable land use and development” and in the action of the European research project COST (2018 – 2022) CA17125 “Public Value Capture of Increasing Property Values” support the implementation of several FEEM study programs, incl. “Civil Construction and Real Estate Management”. Thus, the following is being improved: (1) the study course “Land Use Management” by integrating new spatial development planning techniques and international experience in the use of specific tools in its acquisition and (2) the study course “Research Methods in Construction and Real Estate Management” by integrating new techniques for obtaining public / land values and refinancing of infrastructure, as well as international experience in the use of specific tools for real estate development (see study program reports).

Within the framework of the State research program “Transformation of Economy, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society – A New Approach to Creation of a Sustainable Knowledge Society (EKOSOC-LV)” (2014 – 2017), three interdisciplinary projects “Explore the competitiveness of Latvian companies in foreign markets and make proposals for its strengthening”, “Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy” and “Involvement of the society in social innovation for providing sustainable development of Latvia” were implemented. The academic staff of the study direction programs, international researchers, students of several study programs were involved in the projects by participating in data collection, analysis, interpretation, writing of scientific articles and monographs and presentation of results in international scientific conferences. The results were integrated in almost all study programs of the study direction, most broadly in the programs “Entrepreneurship and Management”, “Business Finance”, “Organization and Management of International Economic Relations”, “Total Quality Management” and “Innovations and Entrepreneurship”.

ERASMUS+ Key Activity 2 (KA2) “Cooperation for innovation and the exchange of good practices” Knowledge Alliances Program project “Improving management competences on Excellence based Stress avoidance and working towards sustainable organizational development in Europe” (IMPRESS) is in line with the European policy objectives to promote innovation in higher education, entrepreneurship and in broader socio-economic environment, taking into account the development and implementation of new teaching and learning methods and materials, in this case also the development of solutions to the problems of reducing stress in the workplace and innovations of these processes. The project’s research also aims to develop transversal skills by addressing organizational issues in higher education programs developed in cooperation with enterprises, considering the development of education modules and taking into account the industry experience. Currently, the initial results of the project have been integrated into several study programs in separate study courses, for example, Integrated Talent Management, Quality Management, Personnel Management. The project is currently ongoing and wider implementation of its results is planned for the 2020/2021 academic year.

**Future plans for the development of international cooperation** are related to the development of existing research directions, taking into account the areas of specialization. The competitiveness and international recognition of FEEM and RBS can be promoted by using diversity in applied economics and management science – emphasizing interdisciplinarity and specialization as competitive advantages. Each institute has specialization and several research areas. In the coming years, FEEM and RBS are planning: (1) purposeful work with groups of scientific staff, incl. professorships, researchers, young scientists, to improve their motivation to publish current research results and increase citation; (2) to build the capacity of institutes by organizing research teams around specific researchers in order to conduct interdisciplinary research, organizing

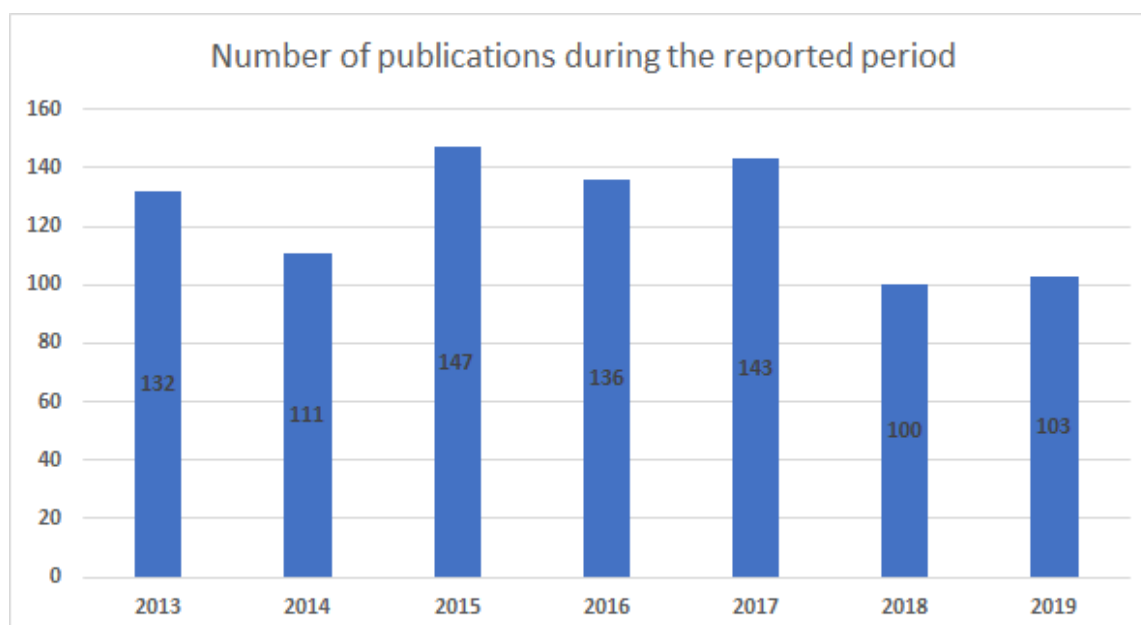
doctoral seminars and cooperating in specific international networks; (3) more active research in the international context by participating in research projects, incl. in COST actions or similar, which are aimed at networking and cooperation in creation of project applications and high-quality publications; (4) participation (as a partner) in one of the Horizon 2020, Horizon Europe 2027 call projects; and (5) more active use and development of existing research infrastructures and tools, incl. development of laboratory equipment and software, as well as scientific journals and projects in order to improve the scientific process and the indicators of valorisation.

**4.4. Specify the way how the higher education institution/ college promotes the involvement of the teaching staff in scientific research and/or artistic creation. Provide the description and assessment of the activities carried out by the academic staff in the field of scientific research and/or artistic creation relevant to the study direction by providing examples and the summary of the quantitative data on the activities in the field of scientific research and/or artistic creation relevant to the study direction over the reporting period, for instance, the publications, participation in conferences, activities in the field of artistic creation, participation in projects by the academic staff members, etc., by listing the aforementioned according to the relevance.**

The RTU staff development strategy is based on diverse improvement of teaching staff, which includes involvement in scientific research and artistic creation. As it has already been mentioned in Paragraph 3.5., since 2017 FEEM has been implementing the academic staff improvement strategy which provides for annual evaluation of performance of teaching staff and coordination of a development plan. The implementation of the plan has significantly improved scientific activity indicators.

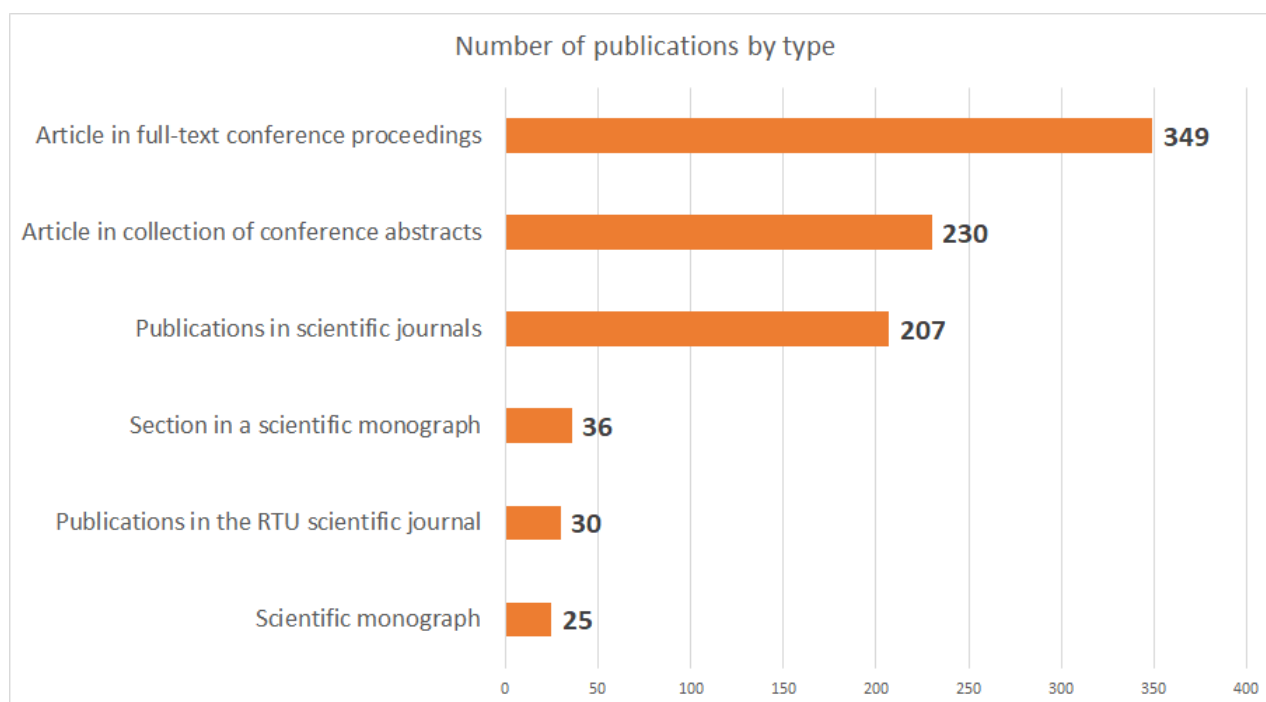
Overall, academic staff and researchers of the direction “Management and Administration, Real Estate Management” prepared **872 publications**, which are available in internationally quoted databases, from 2012 to 2018. **383 of scientific** (category B) **publications** in journals and conference proceedings are available in **databases Thomson Reuters Web of Science and SCOPUS** and **236 of them are quoted** (category A) publications, which are indexed in these (TR and SCOPUS) databases.

As it has already been mentioned, along with academic workload elected academic staff also performs scientific work, which is part of research workload. The results of research work are evaluated as very successful. This is confirmed by a large number of publications and projects in the reporting period.



**Figure:** *Number of publications during the reported period*

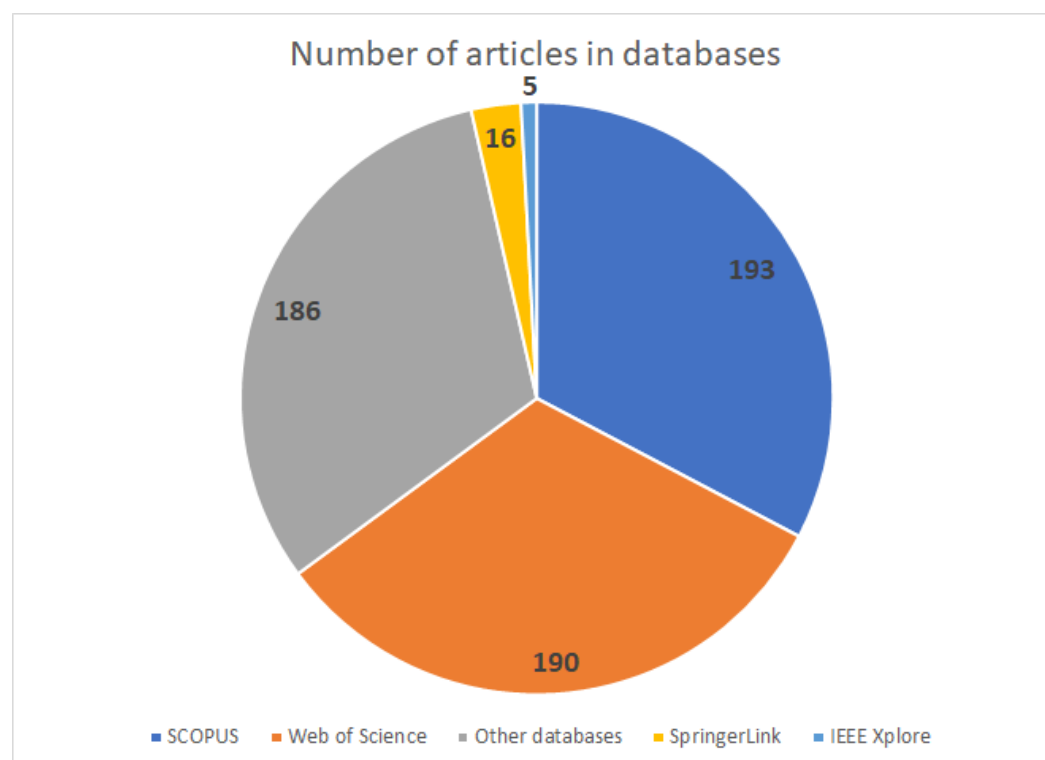
872 scientific publications (125 publications per year on average) have been prepared during the reporting period. The number of publications by years is comparatively even, and this evidences of even research workload. However, as it has already been mentioned, not all the elected teaching staff get equally actively involved in research work and preparation of publications. Professors, associate professors, leading researchers, as well as researchers and scientific assistants, who are doctoral students, have the biggest number of publications.



**Figure:** *Number of publications by type*

More than one third of the total number of publications are articles in full-text conference proceedings. The three most popular types of publications (full-text conference proceedings, collections of abstracts of articles and publications in scientific journals) constitute 772 publications or 89% of the total number of publications. This is an indication of active participation of teaching staff in scientific conferences and to a large extent evidences of compliance of academic activities of teaching staff with current trends in the represented field.

The created publications have been quoted in different sources 223 times, which is an evidence of high added value, feedback and significant contribution to the scientific environment.



**Figure:** *Number of articles in databases*

Almost all the publications are indexed in a scientific database. Most of publications can be found in the SCOPUS database (312 publications) and WoS (284 publications). Overall, 292 publications have been posted in other databases, for example, EBSCO, ScienceDirect, Willey Online or other.

25 monographs have been issued on topics of the study direction, which are available in the RTU library, FEEM methodological room, institutes and departments.

**23 doctoral theses** were defended in the reporting period from year of studies 2013/2014 to 2018/2019. (in addition, see the description of the doctoral study programme “Management Science” in Section III of the report).

Every year, FEEM organises an international *Scientific Conference on Economics and Entrepreneurship (SCEE)* to honour the birthday of RTU. The purpose of the conference is to present latest scientific achievements of researchers in the field of economics, business, international economic relations, customs and taxes in Latvia and abroad, as well as to simplify exchange of information among scientists and to provide doctoral students with an opportunity to publish their scientific papers.

At the same time, RTU issues 3 scientific journals and a number of other scientific editions, where the results of conducted research can be found. Research and articles of researchers, academic staff and doctoral students of the study direction are published in different scientific editions in Latvia and abroad. Every year, FEEM publishes the scientific journal “Economic and Business”, which is quoted *also in EBSCO, ProQuest, Versita and VINITI* databases. The faculty also has other collections of scientific articles in areas like economics, business and management, real estate management, etc. It is important to note the collection of scientific articles “Baltic Journal of Real Estate Economics and Construction Management”, as well as collected scientific articles of students “Economic Research in Business”.

The organisational units FEEM and RBS implementing the study direction have joined the UN

initiative to observe the Principles of Responsible Management Education in their activities and study programmes, therefore, in recent years researchers of the study direction have been focused on social responsibility and sustainability aspects.

Many FEEM doctoral students have chosen topics for their doctoral theses that are closely related to business environment problems in Latvia, ensuring innovation, sustainable growth, etc.

### **Organisation of conferences, seminars and forums important within the study direction and participation in them:**

From 28 August to 1 September 2017, the **25th INFORUM** (Interindustry Forecasting at the University of Maryland) World Conference was held in Latvia (Riga). Matters of formation and use of econometric, cost-spending and INFORUM type economic and mathematical models in the analysis and forecasting of dynamics of the structure of national economic and industrial sectors of different countries were discussed. This year, the conference was organised by the Department of International Business, Transport Economics and Logistics of the FEEM Institute of International Business and Customs led by prof. R. Počs. The conference was attended by cooperation partners from 14 countries: the United States, Italy, Germany, China, Japan, South Africa, Russia, Poland, Turkey, Estonia, Hungary, Chile, Korea and Latvia;

In August 2017, the ICEREE professor Ineta Geipele and the scientific assistant Iveta Stāmure, in cooperation with a representative of the RTU FCE Department of Geomatics participated in the International scientific conference "Baltic applied astroinformatics and space data processing" in Ventspils;

In 2017 and in July 2018, prof. N. Lāce and E. Gaile-Sarkane organised and read the section *Towards Business Sophistication and Sustainability* at the world conference *World Multi-Conference on Systemics, Cybernetics and Informatic* (WMSCI) (Orlando, US), the section has been organised every year since 2010;

In July 2017, an RTU FEEM conference section at the international scientific conference "The 21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017" in Orlando, US, was organised by prof. E. Gaile-Sarkane and prof. I. Lapiņa, and academic staff of the faculty participated in it by reading results of different research. In the conference section "Transformation of Education and Research: Applicability and Sustainability", the results of the project "EU policies impact to the transformations of the higher education and research system in Norway and Latvia" of the EEA and Norwegian financial instrument programme "Research and Scholarship" (VIAA identification No. NFI/R/2014/006) were presented. The work of the conference section focused on wider dissemination of the results of the project, and included presentations of articles: "Overview of Trends and Developments in Business Education" and "Policies, Legislation and Regulatory Compliance Governance Impact on Strategic Management of Higher Education and Research Institutions in Latvia", which received the "Sessions's Best Paper Award" nomination.

In August 2017, IPQ scientific assistants and doctoral students Svetlana Mjakuškina and Maija Kavosa, as well as professor Inga Lapiņa participated in the twentieth international scientific conference on latest developments in quality management "QMOD-ICQSS Challenges and Opportunities of Quality in the 4th Industrial Revolution", which was held in Helsingør, Denmark. "QMOD-ICQSS" has become one of the largest scientific conferences in the world in the field of quality, services, organisational development and related matters. In 2017, the twentieth anniversary of the conference was celebrated. Three scientific publications of IPQ representatives were presented at the conference: "Risk management framework for Integrated Management Systems", "The Product Conformity Assessment Elements in the Integrated Management System", "Certification Process in the Field of Energy Construction in Latvia: Risk Analysis". During the

conference professor Inga Lapiņa led the section *"ISO 9000 Quality Management System"* and received a special certificate of acknowledgement for her contribution in the development of the conference. The professor has been participating in the work of the scientific committee of the conference, reviewing of articles and leading of sections since 2014.

In 2018, prof. N. Lāce organised the section *Innovation Diversity for Emerging Economies* in the SOItmC'2018 conference;

On 20 October 2017, academic, scientific staff and students of ICEREE participated in a Practical scientific forum *"Housing Management Practices, Possibilities of Renovation of Multiapartment Houses"*, which was organised by the organiser of scientific conferences BT 1, the Ministry of Economics, the Association of Management and Administration of Latvian Housing (AMALH), the Guild of Latvian Housing Managers, the RTU Institute of Civil Engineering and Real Estate Economics;

On 13 October 2017, RTU FEEM organised an annual international scientific conference devoted to the 155th anniversary of the Riga Technical University within the RTU's 58th international *"Scientific Conference on Economics and Entrepreneurship"* (SCEE'2017). Readings on the topic *"Myths and reality in work with modern students"* were presented at the plenary session of the conference;

On 10.11 - 13.11.2017, the scientific assistant of the Department of CEREE of the Institute of CEREE Linda Kauškale participated in work of the Eight annual meeting of the Bulgarian DBU Alumni network;

28 December 2017, visiting lecture of the assistant professor of the Institute of CEREE Antra Kundziņa *"Historical and economic aspects of heat supply in civil engineering and real estate management"*;

27 February 2017, visiting lecture of the professor of the Institute of CEREE Jānis Vanags *"Critically creative thinking in scientific research"*;

On 12 - 18 March 2018, the sixth Latvian Week of Financial Literacy was held with participation of teaching staff and employees of RTU FEEM Department of Corporate Finance and Economics (DCFE) to popularise the importance of financial literacy in modern human life;

On 25 - 27 April 2018, the FEEM dean prof. E.Gaile-Sarkane in the international scientific conference of the University of Applied Sciences, Alberta College (Latvia), Walsh College (United States) and the Faculty of Management of the University of Economics in Katowice (Poland) *"Emerging Trends in Economics, Culture and Humanities (etECH2018)"*;

From 4 to 6 May 2018, there was an annual meeting of former DBU scholarship holders (Alumni) from Latvia, Lithuania, Estonia and Kaliningrad organised in Latvia, Jūrmala, in cooperation between DBU Baltikum-Alumnitreffen and the Institute of CEREE. The meeting also included a practical scientific seminar organised and led by the BDU scholarship holder, researcher of the Institute of CEREE Linda Kauškale. Different real estate renovation projects in Riga and Jūrmala were visited during the seminar, as well as participants presented their research project developments and practical experiences in the field of environmental economics and management. Visiting lecturer of the Institute of CEREE, Dipl.ing., Mg.oec. Jānis Zvirgzdiņš read a report on Eco-economics in Cities and Rural Areas.

On 11.04-15.04.2018, assistant professor of the Department of CEREE of the Institute of CEREE Raja Kočanova participated in the 8th International Scientific and Practical Conference *"Contemporary problems of project Management in investment and construction sphere and environmental management"* (Russia);

On 16 – 18 May 2018, assoc.prof. Ingūna Jurglāne and assoc.prof. Velga Ozoliņa of the Department of IBTEL made presentations at the 24rd Annual International Scientific Conference "Research for Rural Development 2018" in Jelgava at the Latvia University of Life Sciences and Technologies;

On 09-11 May 2018, assoc.prof. Ingūna Jurglāne of the Department of IBTEL made a presentation at the 19th International Scientific Conference "Economic Science for Rural Development" in Jelgava at the Latvia University of Life Sciences and Technologies.

**4.5. Specify how the involvement of the students in scientific research and/or artistic creation activities is promoted. Provide the assessment and description of the involvement of the students of all-level study programmes in the relevant study direction in scientific research and/or artistic creation activities by giving examples of the opportunities offered to and used by the students.**

RTU and FEEM have mechanisms for involvement of students of all study levels and programmes in research work. Thus, for instance, the following activities can be mentioned as one of the most important at the university level:

- Centralised courses/summer schools on research methods and methodology;
- Support funds for conducting scientific projects (Master studies, doctoral studies);
- Availability of research infrastructure, including hardware and databases;
- Scientific technical conference for students;
- Different tutorials and mentoring;
- "Research Slam" contest, etc.

On 12 December 2017, the FEEM Council approved the **Guidelines for the Integration of Scientific Activities in the Study Process at FEEM** (No.22000-1.2/89). The Guidelines were approved based on the FEEM Council decision No. 22000-5.2/10 of 11 April 2014 "On Approval of FEEM as a Unified Scientific Organisational Unit", the RTU Strategy (2015-2020), which was approved at the RTU Senate meeting of 27 May 2015 (minutes No.590) and FEEM Research Development Guidelines for 2014-2020 (approved at the FEEM Scientific Council meeting on 18 February 2014, protocol No.22000-7.1/1). These guidelines are reviewed and updated on an annual basis. These guidelines lay down the types and mechanisms of involvement of students in research at all study levels.

The guidelines were developed based on the publication of the Higher Education Academy "*Students as researchers: Supporting undergraduate research in the disciplines in higher education*". The guidelines approved by the FEEM Council are in line with three fundamental principles, and thus, as FEEM implements study programmes of all levels, the involvement of students in research takes place as:

- **Knowledge transfer** – exchange or dissemination of knowledge and experience to ensure resolution of problems. Manifests as transfer of experience of organisations to a higher education institution and experience of a higher education institution to organisations. Integration of research results of academic staff and students in the study process – study course curriculum (also in resolution of situational tasks, etc.), teaching and methodological literature, scientific publications, monographs, etc.
- **Research at all study levels** separately emphasising research by years of studies at FEEM,

competences, research methods, results in academic studies and research by years of studies at FEEM, competences, research methods, results in professional studies;

- **Innovation and commercialisation (valorisation) of developments obtained as a result of artistic creation.**

There are activities aimed at strengthening the Doctoral studies and providing career opportunities during the post-doctoral period to young researchers.

Doctoral grants are provided to Doctoral students on a competitive basis. International calls are made to attract to post-doctoral projects. In addition, the internal Research Excellence Grant for young scientists was established in 2018 as a new initiative, providing 270 000 EUR for 3-year period based on international competition (conditions are similar to EC ERC grant with international call and evaluation performed by external, i.e., foreign well-recognized researchers). The grant allows young and talented researchers to establish their own research groups and make research career at RTU. Internal project calls provide additional funding for publishing articles in SCOPUS/WoS indexed editions, and internal projects within 6 research platforms stimulate involvement of Doctoral and Master students in multi-disciplinary and inter-faculty research projects in cooperation with the industry. The Research Support Fund (10% of the research base funding is allocated to this fund) provides support to Doctoral students (attending conferences, publishing papers and thesis, etc.). Employment of Doctoral students and post-doctoral researchers at RTU went up from 0 FTE in the period of 2013-2016 to 88 FTE (Doctoral students) and 97 FTE (Post-doctoral researchers) in 2018. 17 post-doctoral 3-year long projects with total funding of 2.28 million EUR were launched in 2017. The funding covered salaries, costs of materials and mobility, as well as support for further development of research skills. 16 post-doctoral 3-year long projects with total funding of 2.14 million EUR were launched in 2018. In 2019, 11 projects should be launched with total funding of 1.5 million EUR (circa 134 000 EUR are allocated to one project). The post-doctoral projects allow attracting new researchers to RTU from abroad and other Latvian research institutions, and providing academic career opportunities to Doctoral students who graduate from RTU.

Internal project calls within the six research platforms, which are organized every year, have criteria regarding the involvement of students in the project, giving an additional score if students at the Bachelor, Master or Doctoral level are involved in the project.

The Design Factory (DF) of Riga Technical University (see additional information about the DF below) organizes the study course "Vertically Integrated Project" (VIP), during which interdisciplinary student teams develop a challenging long-term research project under the guidance of experienced researchers. The course is implemented in cooperation with researchers from the Georgia Institute of Technology (the USA). Within the course, cross-disciplinary student teams are assembled, bringing together students from at least three different study programmes, and ranging from first-year Bachelor students to Doctoral students, as well as involving pupils from the Engineering High School (EHS) of RTU (see additional information about the EHS below). During the course, students participate in research work under supervision of RTU researchers, working together with students of other study programmes and gaining experience in research as well as in team and project work. At the end of the course, each team presents its progress and demonstrates the results obtained. For example, during spring semester of 2019, the call for VIP courses was announced for three topics:

- sensor systems and networks (group leader Prof. Jurgis Poriņš);
- wastewater treatment (group leader Prof. Tālis Juhna);
- energy efficient houses (group leader Leading Researcher Jānis Zaķis).

The course is registered as a course of Part C (free electives) and two credit points are assigned to

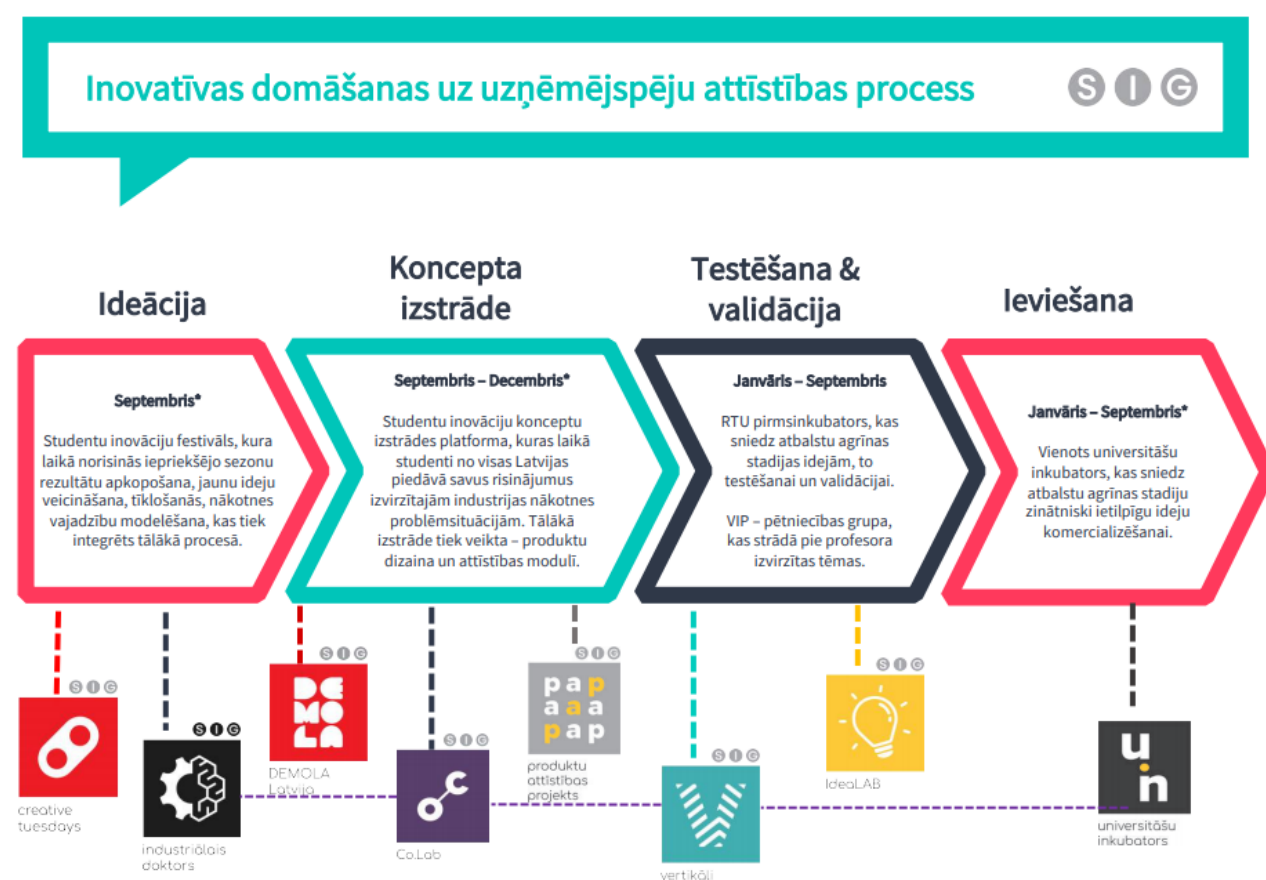


the student in the semester.

The Engineering High School of Riga Technical University is the first general secondary education establishment in Latvia that has been founded within the framework of a university. It is the place where the most talented Latvian pupils can acquire the study courses in exact and natural sciences at an advanced level to get prepared for the engineering studies. At the EHS, special attention is paid to the integration of engineering studies and scientific research activities into the study process.

A success story is the establishment of RTU Design Factory Labs (<http://rtudf.rtu.lv>) for design and prototyping. Idea of having the Lab at RTU was inspired by a positive example of Aalto University in Finland. Its task is to provide expertise and shared infrastructure for developing prototypes of new products and technologies, based on ideas of students and researchers. RTU Design Factory also works with industry, start-ups and spin-offs and has established a very good reputation. We could observe that it considerably improved the involvement of students at all study levels in research and innovation activities and promoted cooperation of RTU with industry.

In order to develop innovative thinking, artistic creation and business skills in students, RTU implements a project “**Innovation grants for students**” (project No. 1.1.1.3/18/A/001 “RTU innovation grants for students” co-financed by ERDF). Students of all levels are offered to involve in different activities and to improve their business skills, to cooperate with the industry, to develop early science-intensive business ideas, to get a scholarship and a support grant. The “RTU Innovation Grants for Students” is a platform for students, industry and scientists, which promotes mutual cooperation, development and artistic creation (see Fig. Innovative thinking and business skills development process).



**Figure:** Innovative thinking and business skills development process

Eight activities are implemented in the programme “RTU Innovation Grants for Students”:

- **“DEMOLA Latvia”**- concepts for innovative use solutions for ideas/challenges defined by companies are developed by uniting students from different universities, academic and scientific staff and industry companies. Interdisciplinary and intercultural student teams, which involve young specialists in different areas, are created for problem solving in order to develop the ability to cooperate with industry representatives already during studies. Searching for new solutions promotes design thinking, provides intercultural experience and understanding of industry development and development and introduction of new concepts. The cooperation platform “DEMOLA Latvia” is implemented according to the example of the successful International Open Innovation Cooperation Platform “DEMOLA Network”.
- **Ideation activities** – promote generation of new business ideas, team building, networking and development of new products. The process is based on generation of ideas, the development of a quick (in conditions of time and space restrictions) solution and the receipt of expert evaluation. For example, a **Hackathon**, which lasts 24-48 hours, and aims to create new teams and create new technological solutions. Initially, each person having a business idea presents it to the other participants. The participants then choose, on which idea they will work for the next 48 hours and make a real prototype of the product from scratch. The hackathon is a place when representatives of different levels and occupations meet.
- **Product development project (PDP)** – a training module, where student teams create prototypes by systematising and deepening knowledge in development of new products, technology transfer, innovation and commercialisation of their results. The task of the activity is to develop the competence of students in the development of new products and technology transfer, to multiply business skills and their use in practice, at the same time promoting the development of general innovation and planning skills, as well as to raise awareness of modern business models.
- A **vertically integrated project (VIP)** unites students from different sectors allowing them to develop a large-scale design and research project, at the same time strengthening and expanding scientific activities of teaching staff. The purpose of the activity is to create an opportunity for students from different study programmes and levels to cooperate a long-term research project – Master and doctoral students supervise the work of Bachelor students in a design and research project that may be part of the Master’s or doctor’s research work.
- **RTU IDEALAB** – the pre-incubator provides support to new or existing business ideas of RTU students promoting the initiation of new business activities providing support to students for the development and initial testing of a business idea. On student or a team, in which at least one representative is a student of RTU, may submit their ideas for the pre-incubator. “RTU IdeaLAB” is implemented at two levels. First, there is training of all applicants focusing on validation and testing of the idea, improvement of team work, identification of the common goal.
- **COMMERCIALISATION TRAININGS FOR SCIENTISTS LAB** – the objective of the activity is to develop and promote closer cooperation between the research and commercial sectors, involving business leaders in the research process of young scientists – doctoral students, in parallel ensuring an evaluation of the commercial nature of the research and promoting business skills and innovative thinking of the young scientist.
- **INDUSTRIAL DOCTOR** – development of a doctoral thesis research in line with interests and needs of a company. In the preparation of doctoral students scientific methods are usually based on problems created in the academic environment, therefore there is no clear link with the industry and its needs. The objective of this activity is to provide financial support to young scientists who write a doctoral thesis on a topic useful for the development of the company and whose scientific developments are necessary for the development of the company concerned. The university, in cooperation with the company, prepares a doctor of science with specialisation initiated by the company. The doctoral student works at

university, but is actively involved in R&D activities of the company. The selected topic is based on scientific excellence of the university and the strategic vision of the company in technological development.

- **University incubator** – promotes the development of science-intensive business ideas of students and creation of new high value added companies. Student teams get support in the development of initial testing of a scientifically intensive business idea preparing it for the next phase of development of the idea – attraction of private or public investment. The incubator provides teams with expert consultations (for testing the viability of the business idea, preparation of a business plan, market research, organisation of working groups, technological expertise of a business idea and building of a team of developers of the idea), equipped workplaces, trainings, services of external experts, technological expertise and support funding for the development of the business idea.

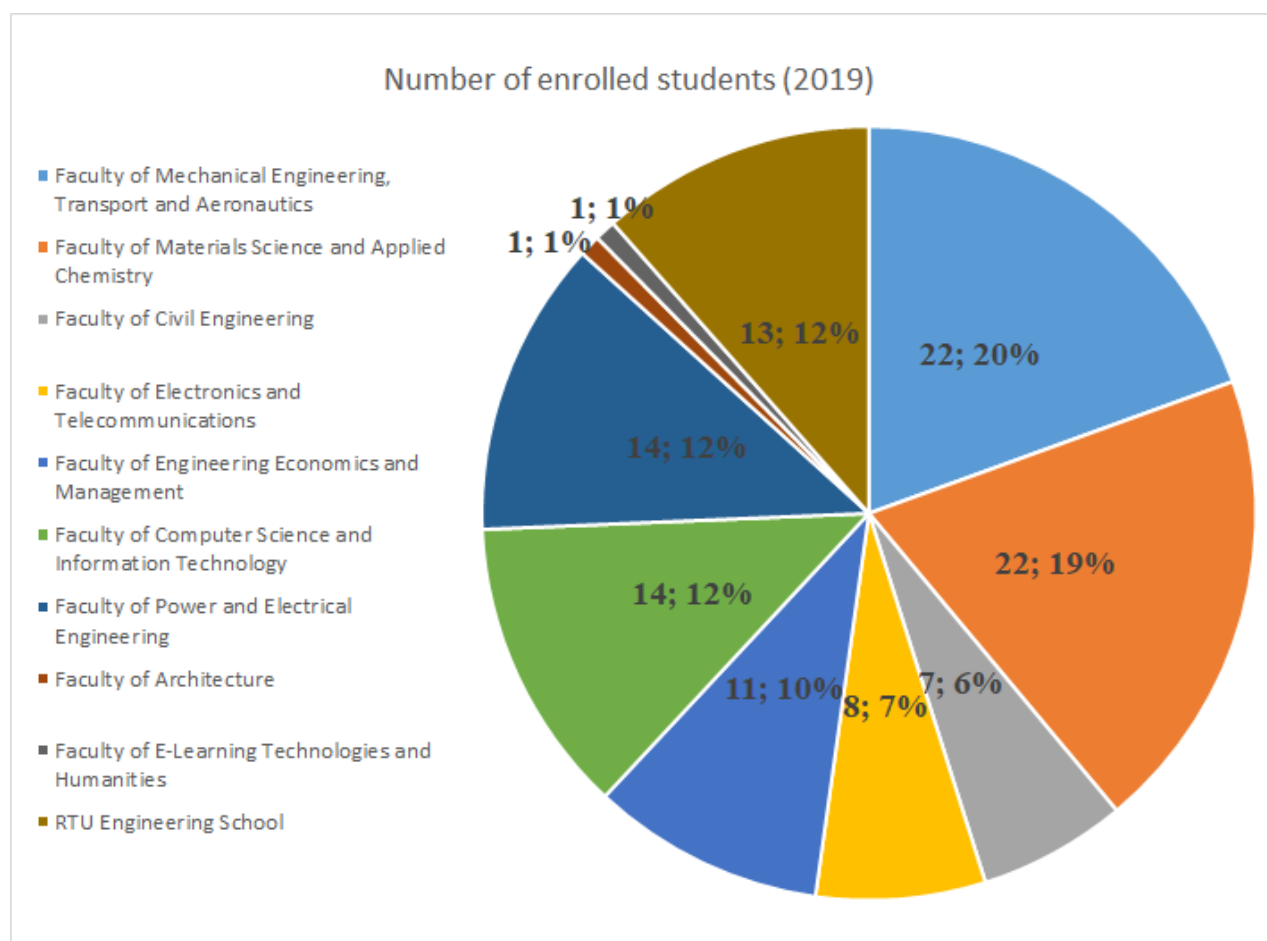
In all study programmes students are actively involved in practical transfer of business ideas.



**Figure:** Activities offered by the RTU Design Factory to support students

In 2019, 22 students from different programmes of FEEM study directions got involved in activities of RTU innovation grants for students (see Fig.) using the opportunity to improve their business

skills and developing their business ideas.



**Figure:** The number of students enrolled in 2019 in activities of RTU Innovation Grants for Students

Students of the study direction, according to the scope defined in study programmes, also get involved in research work, which is performed both individually and within projects and working groups. In accordance with the specifics of research projects, students of all levels (college programmes, Bachelor, Master and doctoral students) get involved in collection, analysis and interpreting of data.

#### **Different activities have been organised, where students had achievements:**

In April 2018, there was the first joint scientific conference for students of RTU Faculty of Engineering Economics and Management (RTU FEEM) in cooperation with the Faculty of Business, Management and Economics of the University of Latvia (UL FBME). The conference was organised in two sections – *Current challenges in economics* at the UL Faculty of Business, Management and Economics (FBME) and *Business, management and marketing* at the RTU Faculty of Engineering Economics and Management (RTU FEEM).

**4.6. Provide a brief description and assessment of the forms of innovation (for instance, product, process, marketing, and organisational innovation) generally used in the study direction subject to the assessment, by giving the respective examples and assessing their impact on the study process.**

Innovation, valorisation and introduction of innovative methods in the study process is one of strategic priorities of RTU. FEEM innovation activities take place in several directions and at several levels.

FEEM teaching staff ensures the implementation of study courses related to the development and commercialisation of innovative products in all faculties of the university, this ensures artistic creation, innovation development and continuous knowledge transfer. Student start-ups are created as a result of this activity, which continue to develop in an RTU or Latvian business incubator, patents are also registered. Integration of new knowledge and experience in study courses should be mentioned as one of the results.

When FEEM scientists and researchers implement research projects (for the list see Paragraph 4.3.), they obtain new knowledge from project partners or create new ideas, innovative research methods as a result of research, which are then integrated in other projects or the study process. For example, assoc. professor Karine Oganisjana conducted a research and issued a scientific monograph **“Social Innovation: Challenges and Solutions in Latvia”** within project 5.2.7 “Involvement of society in social innovation processes to ensure sustainable development of Latvia” of the National Research Programme “EKOSOC-LV” (“Transformation of national economy, smart growth, management and legal framework for the sustainable development of state and society – new approaches for creating a sustainable knowledge society”).

Based on the aforementioned, in order to ensure transfer of innovative knowledge at RTU, in 2017, FEEM teaching staff developed and submitted for approval a qualification improvement course **“Innovative Solutions in Competence-Based Studies”**. The study course is intended for doctoral students and university lecturers to promote their skills to critically analyse, develop and integrate modern innovative solutions for successful implementation of competence-based studies.

In 2017, researchers of FEEM of the Riga Technical University in cooperation with another Latvian university and Norwegian researchers completed a study on the impact of European Union policies on changes in higher education and science system in Norway and Latvia. The research results will help to promote the efficiency of operations of universities, their further development, as well as to increase competitiveness, thus ensuring more effective Europeanisation of the higher education areas at different levels. Three universities from Latvia are involved in the study: the University of Latvia (the leading partner), RTU and the Riga School of Economics. Norway is represented by the Nordic Institute for Studies in Innovation, Research and Education (NIFU). Current EU policies urge higher education institutions and research institutions to make big changes in their further operation model in response to global trends created by the new environment in higher education institutions and research institutes, including innovations, knowledge-based development, intellectual property rights and academics business. Therefore, the study evaluated the Bologna Declaration, the Lisbon Strategy and other policy documents and the impact of related processes on the system of higher education in Latvia and Norway. At RTU, the project was led by M. Ozoliņš, the implementation of the project at RTU was ensured by leading experts – professor Elīna Gaile-Sarkane and professor Inga Lapiņa, as well as FEEM’s leading researchers, researchers and doctoral students. The project was co-funded by the Norwegian financial instrument. Research within this project was used in faculty and study direction development strategy.

Within the scope of the Latvian – Norwegian Master’s study programme “Innovation and Entrepreneurship” students of RTU FEEM in cooperation with the Children’s Clinical University Hospital developed innovative solutions to ease daily activities of the hospital within the scope of the study course “Product Design and Development”. Presentations were evaluated by the course

leader RTU professor Elīna Gaile-Sarkane, director of the programme Modris Ozoliņš, CCUH nurse Madara Blumberga and Executive Director of the Children's Hospital Fund Ieva Lejniece.

Two inventions were created within the scope of the study direction:

- **Holder for transportation of wet paintings**, which was approved by the Patent Office of the Republic of Latvia and included in the register of patents No. 15297. The invention was created having identified needs of consumers and having developed a relevant product, which is vitally necessary for painters. The invention was created within the study course "New Product Design and Development".
- **Technique for separation and smearing of butter and similar substances and a device for the implementation of the technique**, which was approved by the Patent Office of the Republic of Latvia and included in the register of patents No. 13890.

In order to promote Latvian economic growth and development of modern production sectors, RTU provides students with opportunities to develop business competence and the opportunity to become aware whether they are interested in this field of activity or not. An RTU Senate decision of 2015 provides that a business, technology transfer and product development study module should be introduced into all engineering study programmes. RTU is the first university in Latvia planning to integrate the business and innovation module in all RTU Bachelor level study programmes by 2019. In this academic year, the pilot project of the module was implemented at the Faculty of Mechanical Engineering, Transport and Aeronautics. When students practically work in projects, they develop, entrepreneurial competence and creative thinking, moreover, part of the project is work at the RTU Design Factory on development of prototypes, turning own theoretical knowledge into real products or services. As a result of the entire process the student understands whether he or she is a scientist, inventor, engineer or businessman. The student has learned how to transform previously identified needs of consumers into a product or service. This is an important competence, the development of which in young engineers was previously not particularly taken care of, says the leader of the pilot project and one of authors of the module professor Elīna Gaile-Sarkane. From academic year 2017/2018 the pilot project for the implementation of the business study course in engineering faculties continues. Professor Elīna Gaile-Sarkane, assoc. prof. Deniss Ščeulovs implemented a study course "Development of Innovative Products and Entrepreneurship" for Bachelor level students of the Faculty of Power and Electrical Engineering and Bachelor students of the Faculty of Mechanical Engineering, Transport and Aeronautics and the Faculty of Electronics and Telecommunications. Assistant professor M. Ozoliņš participated in coordination of the study process.

The **Marketing Idea Contest 2018** or MIC2018 was held in November 2018. This year, the "Reclaminator" event of the FEEM SP was reborn in a new image and was organised together with the Turība University. Three large and well-known Latvian companies (Sigulda Adventures, Milzu!, Četras zoles) were addressed. Participants had to develop solutions for the tasks offered by the companies and authors of the best ideas received valuable gifts prepared by the companies. Students from FEEM, as well as other RTU faculties, Turība and other higher education institutions participated in the event. 15 teams participated in the event, included 4 foreign teams, and one of them won in the task prepared by Milzu!

Overall, innovative solutions, international and local experience in the study process are being actively integrated. Insufficient scientific ambitions and unjustifiably high self-criticism of researchers in reinforcement of cooperation with world's leading research institutions can be mentioned and the biggest weaknesses.

## **II - Description of the Study Direction (5. Cooperation and Internationalisation)**

**5.1. Provide the assessment as to how the cooperation with different institutions from Latvia and abroad (higher education institutions/ colleges, employers, employers' organisations, municipalities, non-governmental organisations, scientific institutes, etc.) within the study direction contributes to the achievement of the aims and learning outcomes of the study direction. Specify the criteria by which the cooperation partners suitable for the study direction and the relevant study programmes are selected and how the cooperation is organised by describing the cooperation with employers. In addition, specify the mechanism for the attraction of the employers.**

### ***Cooperation with employers, professional organizations***

RTU FEEM and RBS has been cooperating successfully with companies, sectoral associations and public organisations for a long time. Every year, cooperation is expanding, strengthening and new forms of cooperation are emerging, with a growing mutual interest in delivering a successful outcome of cooperation. The main areas of cooperation and activities within the framework of the study directions are:

- ensuring and improving the study process and quality, including improving of curriculum of the programmes and forecasts for the needs of specialists;
- providing internship and professional development of students by offering places of placement and jobs;
- managing and reviewing study and graduation papers, offering topics of graduation papers (formulating problems to be solved in companies so that students can develop economically sound solutions);
- ordered research and approbation of the results of scientific studies, company, process improvement and optimisation tasks for students;
- involvement of professionals (company specialists) in the study process and in state examination board;
- organisation and implementation of other, extracurricular, activities outside, including company scholarships and support for students, Career Days (see also Paragraphs 5.3);
- representation of the interests of the university and industry in governmental and international organisations;
- juries of different contests (for example, Idea Cup), investment raising events (*Cambridge Venture Camp*), evaluation of ideas for new products (e.g., *Demola*, etc) (see also Paragraph 4.5).

In order to ensure constant bilateral dialogue, working groups, seminars, events and conferences, where all the stakeholders (employers, graduates, academic staff of the university and students) can meet, are organised on a regular basis. Quality of programmes, curriculum and form of study courses, organisation and implementation of practical work is organised during such meetings. The study programmes included in the study direction are supplemented and updated during their implementation based on labour market research and consultations with employers and practicing specialists. Recommendations of graduates, students and academic staff of the higher education institution play an important role in the implementation of the study direction. Surveys of graduates and employers are organised on a regular basis. Respondents are urged to evaluate programmes, knowledge and skills of graduates of programmes and their compliance with labour market

requirements. Overall, survey results show that employers evaluate positively all the study programmes of the directions and their topicality. When evaluating the results of surveys of employers in the last years, a conclusion can be made that employers appreciate graduates of the programme, the wish of young specialists to professionally improve, as well as the need to cooperate more closely, in particular in the field of practical studies, is emphasised.

In October 2017, a **FEEM Convent of Councillors** was created at RTU FEEM and approved at the FEEM Council meeting. The purpose of functioning of the Convent is to promote the development of RTU and the faculty in accordance with the RTU strategy and national economy needs. The main tasks of the Convent are to advise faculty administration, provide opinions and proposals regarding the development of the faculty and RTU in general, improvements to the study process, planned financial investments, changes in the governance model and other important matters in work of the faculty. The **Convent** has **11 members** – specialists of the national economy, whose principal work is not RTU and who may promote the development of the faculty by their professionalism. chairman of the board of SIA “Vollers – Rīga”, president of the Association of Transportation Companies “Latvijas Auto”, chairman of the board of SIA “Grif”, Chief of the Civil Defence Department of the State Fire and Rescue Service, member of the board of SIS LATSIGN, director of Latvijas Zaļais punkts, chairman of the board of SIA “Leilands un Putnis”, Executive director of the community “The Association of Regional Development Centres”, head of the Procurement Monitoring Bureau, deputy chairwoman of the board of the Latvian Association of Civil Engineers, member of the board of SIA “MAXIMA Latvija”.

The first three Convent meetings were held in academic year 2017/2018 (in November, February, June). At these meetings, participants were familiarised with tasks, aim and duties of the Convent, discussed and clarified the purpose of the study direction and their compliance with labour market requirements and development directions. Convent members were familiarised with the ESF project (No.8.2.2.0/18/A/017) “Strengthening the academic staff of Riga Technical University in the areas of strategic specialization” (SSO 8.2.2.) on the possibility of traineeship of academic staff of the Riga Technical University in companies. They also discussed sectoral maps and profession standards, development of profession standards and delegation of representatives for working groups developing profession standards.

In addition, members of the Convent of Councillors of RTU FEEM met and established cooperation with:

- the head of the Procurement Monitoring Bureau – a research was conducted within the scope of Master thesis, an innovation tender evaluation framework has been created as a result of that, which can be used in innovation public procurement procedures. When the research started, there were no innovation procurements (or innovation partnership procedures in Latvia). One of the obstacles in movement towards the goal of the Europe 2020 strategy of the European Union (by 2020 European Union Member States should invest 3% of their gross domestic product in research and development”), incl. also implement an innovation public procurement.
- member of the board of “Maxima Latvia” – discussing potential cooperation and internship opportunities for students, as well as participation in development of profession standards;
- member of the board of LATSIGN – discussing potential cooperation and creation of a project working group relating to occupational safety and placement of signs for blind/visually impaired people and ergonomics.
- deputy chairwoman of the board of the Latvian Association of Civil Engineers (LACE) – has been a member of the State Examining Board (SEB) at all levels of studies for more than 6 years, and, has been the chairwoman of SEB since academic year 2019/2020. Thus, the level of study quality is evaluated in Civil Engineering and Real Estate Management and Real



Estate Management study programmes, as well as preparedness of students, their competence, level of knowledge and skills, their compliance with labour market requirements in the sector. She is also an adviser in integration of the content of the Profession Standard Construction Estimate Engineer into the study programme. Regular “delivery” of latest information in the construction sector to students of the Civil Engineering and Real Estate Management and Real Estate Management study programmes promoting attraction of funding in the quarterly LACE journal “Construction Engineer”.

Representatives of the FEEM Convent get actively involved in the development of qualification structures and profession standards.

Cooperation with different professional organisations with the scope of the study direction takes place in organising of joint conferences and seminars, and also as scientific cooperation, consultation on development of the industry and necessary changes and improvements to the education system. The following can be mentioned as the most important cooperation partners in this field:

- American Chamber of Commerce in Latvia;
- American Society for Quality;
- US Embassy in Latvia;
- Business Efficiency Association;
- British Chamber of Commerce in Latvia;
- IT Cluster;
- Latvian Actuarial Association;
- Ministry of Foreign Affairs of the Republic of Latvia;
- Latvian Association of Civil Engineers;
- Employers’ Confederation of Latvia (LDDK);
- Latvian Association of Economists;
- Investment and Development Agency of Latvia;
- Latvian Association of Property Appraisers;
- Latvian Association of Business Advisers;
- Latvian Society for Quality;
- Latvian Logistics Association;
- Latvian National Accreditation Bureau (LATAK);
- Latvian National Association of Freight Forwarders and Logistics (LAFF);
- Association of Management and Administration of Latvian Housing (LNPAA);
- Latvian Association of Real Estate Deals (LANĪDA);
- Latvian Association for People Management;
- Latvian Chamber of Commerce and Industry (LTRK);
- Latvian Association for Transport Development and Education;
- Metrology and Accreditation State Agency;
- Norwegian Chamber of Commerce in Latvia;
- Riga Business School Alumni Association;
- Latvian National Project Management Association
- and other organisations.

As it has already been mentioned in Section 1.4., the management of the study direction is ensured by the Study Direction Committee that includes specialists (see Annex "Composition of the study direction committee"). It is another effective form of cooperation with employers. Their point of view is very important in shaping the content of study programmes, as it helps maintain close relation with current trends in the national economy and local government processes. Information on the cooperation agreements concluded is provided in Appendix.

There is regular cooperation **with local governments and non-governmental organisations** within the framework of the study direction.

FEEM ICEREE has had long-term cooperation with professional organisations, which, in turn, are members of international organisations (associations) **FIABCI**, **CEPI** and **TEGoVA**, therefore, aims and tasks of education programmes are in harmony with the rules set by these organisations for general requirements for professions in the world and Europe. By establishing a unified platform for professional qualification level requirements in the EU, the associations emphasise uniform education quality requirements in all Bachelor's study programmes in estate management in Europe. Representatives of these organisations organise regular meetings with the administration of the organisational unit, attend lectures, organise seminars and forums not only for professionals, but also for lecturers and students. For example, every year, in September, there is a *FIABCI* international forums with participation of ICEREE representatives, participation of students and teachers of the organisational unit in the conferences organised by LNPA is an annual event, which takes place during the exhibition "House, apartment".

The Institute of Production Quality has been successfully cooperating with the Latvian Society for Quality and the Business Efficiency Association, as well as **LATAK** and Latvijas Standarts (LS), offering unique programmes in quality management and compliance assessment in Latvia. Since 2016, IPQ representatives have been participating in the LVS terminology working group. Since 2019, 3 representatives of the Department of Quality Technology have had traineeship in Latvijas Standarts. Discussion cycle seminars were organised in IPQ premises jointly with the Latvian Society for Quality. The head of the Department of Quality Technology actively participates in the improvement of quality of higher education and its evaluation system.

Since 2016, the Riga Business School together with the American and Norwegian Chamber of Commerce in Latvia organise an annual RBS "Forum of Business Talents" with participation of company representatives and students. The purpose of the forum is to set up a platform, where government leaders, corporate representatives meet students and discuss matters of necessary skills, motivation and knowledge obtained at the university for successful career and business. For example, in 2017, the topic of the event was "How to create an attractive, long-term company and how to development, create future talents". The forum was attended by representatives from companies: Orkla Confectionery & Snacks, Gateway & Partners, iPS Media COO, Brain Games and Swedbank.

In order to promote innovation, the growth of enterprises, and the sustainability of enterprises, LIAA in cooperation with RBS are sharing business training for entrepreneurs from September, 2018. The aim of this training is to emphasize the importance of innovation in organizations by providing participants with practical experience in developing new products and services. The training is organized within the framework of the LIAA project "Innovation Motivation Program" and is co-financed by the European Regional Development Fund and the European Union.

Anti-Money Laundering Specialist by "Association of Certified Anti-Money Laundering Specialists" (ACAMS) Course is designed for professionals in the financial services industry who intend to obtain the Certified Anti-Money Laundering Specialist (CAMS) Certification within six months after the completion of the course. The aim of the course is to help course participants obtain an in-depth understanding of anti-money laundering and counter-terrorist financing techniques and current international regulation in those areas as well as assist qualified professionals to prepare for the CAMS examination.

Academic staff of the study direction participates in **sectoral expert councils of national importance**:

- In November 2017, the deputy head of the Department of International Business, Transport Economics and Logistics of RTU FEEM, associate professor Ingūna Jurgelāne-Kaldava was elected deputy chairwoman of the Sectoral Expert Council for Transport and Logistics at the meeting of the Sectoral Expert Council for Transport and Logistics.
- In January 2019, professor Inga Lapiņa was elected the chairwoman of the sectoral expert council "Business, finances, accounting, administration (wholesale, retail and commerce)".
- Starting from 2016, Professor Ineta Geipele has been participating in the Sectoral Expert Council for Construction.
- Deputy Dean of FEEM, professor Inga Lapiņa represents RTU as a member of LDDK in the national level tripartite social dialogue institution – Tripartite Sub-council for Co-operation in Vocational Education and Employment (PINTSA), social partners of which are representatives delegated by the Ministry of Education and Science, the Latvian Employers' Confederation (LDDK) and the Free Trade Union Confederation of Latvia (LBAS).

Academic staff of the study direction participates in different public activities, for example:

- In academic year 2017/2018 assoc. prof. of the Department of Corporate Finance and Economics Karine Oganisjana developed and led different courses in many Latvian cities:
- "Interdisciplinary study process, when implementing competence-based approach in education: nature, goals and tasks of interdisciplinary training process and interdisciplinary learning tasks – content and building methodology" (8 hours) for principals and deputy principals of schools in Riga, Bauska, Cēsis, Saldus, Daugavpils, Gulbene and Jelgava within the scope of the professional competence improvement programme A for teachers "Introduction of the competence-based approach when working in a team of teachers" prepared by the National Centre for Education;
- "Improvement of professional competences of teachers for work in an interdisciplinary learning environment" (8 hours) for management teams and heads of methodological associations of education institutions in Auce, Dobeles and Tērvē, as well as the course "Interdisciplinary studies" at the teacher conference in Daugavpils;
- several times led courses, lectures, seminars for teachers in Stopiņu, Madona, Kandava and other Latvian municipalities on the topic "Interdisciplinary studies for promotion of currently needed competences", as well as lectures on competence-based approach in education at conferences for parents, teachers of schools in different municipalities and in a continuing education course;
- led the course (8 hours) in Dobeles and a master class at the conference in the Balvi State Gymnasium on the topic "Integration of physics and mathematics in interdisciplinary studies in the context of competence-based education".
- In August 2017, Professor Inga Lapiņa read a lecture at a seminar in preparation for the "Forum of Student Leaders" of the Student Union of Latvia on the topic "Evaluation of the quality of higher education – quality management in a higher education institution". In October, she read a lecture at the seminar of the Student Council of the Ventspils University of Applied Sciences "Iestāšanās 2017" on the topic "Student in a higher education institution – 4I".
- In 2018, an ICEREE professor Ineta Geipele and scientific assistant Iveta Stāmure as members of the LBS section of Education and young specialists participated in the discussion organised by the Latvian Partnership of Construction Businesses and the Latvian Association of Builders about those representatives of vocational education institutions, which prepared specialists for construction – from universities, colleges, vocational schools, professionals secondary schools and trade schools – on problems of importance for the industry and possible solutions.

Every year, the Student Self-Government organises field trips to familiarise students with local companies and development of Latvian regions. In 2019, the destination of the spring field trip was Kurzeme. At the end of March, students went to Ventspils to visit Ventspils Nafta, Kurzemes Democentrs, Ventspils Centre of Radio Astronomy, as well as to establish a commonwealth with the Student Council of the Ventspils University of Applied Sciences. Foreign students, including three Mexicans and one Spaniard, also went to this field trip. We should thank the Institute of Business Engineering and Management for provision of transport for this trip.

### ***Cooperation with Latvian and foreign universities***

Taking into account integration of Latvia in the European Union and globalisation of business, programmes of the study direction are implemented in Latvian and English. As a result, students better learn international business terminology. The FEEM and RBS strategy aims to become internationally well-known organisational units, which are open for foreign students, and therefore the following development goals have been set:

- internationalisation of studies, training and research;
- development of international partner relations and cooperation;
- extension of international experience of students;
- effective attraction of foreign students;
- improvement of study quality of international students;
- extension of opportunities of staff and improvement of motivation to get involved and actively participate in the process of internationalisation.

FEEM and RBS within the scope of this study direction have close cooperation with several Latvian and foreign universities. There are agreements between RTU and LU, RSU on mutual cooperation in the implementation of the study process and development of science, which provides for cooperation in all the areas, starting from free student mobility between both universities to the implementation of joint projects in different areas. FEEM also has agreements with most of Latvian colleges on cooperation and possibilities of continuing studies.

Within the scope of the study direction FEEM and RBS participate in the organisation of work of several important international organisations and implementation of international projects. Each of the internationalisation aims set by FEEM and RBS has detailed sub-aims and tasks to be performed. It should be noted that the number of foreign universities, with which cooperation is established, increases year on year, this enabling students to study and have internship abroad, as well as there is international cooperation of academic staff in research and academic work. For more information see [www.feem.rtu.lv](http://www.feem.rtu.lv) or [www.rbs.rtu.lv](http://www.rbs.rtu.lv).

When selecting cooperation partners corresponding to the study direction and study programs, the following **criteria have been determined for international cooperation and development of joint projects**:

- higher education institutions which have received positive evaluation and accreditation from international organizations, EFMD, AACSB, CEEMAN, WCO, EUA, UIIN;
- higher education institutions which are members of the most significant international cooperation organizations CESAER, EFMD, BMDA, AACSB, CEEMAN, Nice Network, UIIN, WCO, FIABCI, IFORS and others (see the list <https://www.rtu.lv/en/feem/for-partners/international-partnership>);
- higher education institutions with which long-standing and successful cooperation has been established within the Erasmus+ mobility program for academic staff and students, especially in unique and specific thematic areas such as Real Estate Management, Quality Management and Conformity Assessment, Logistics, Internal Security and Civil Protection,

etc.

- higher education institutions in OECD countries which are in top positions in world rankings.

For example, in 2015, FEEM started cooperation with the **Anglia Ruskin University** (Cambridge, UK) within the scope of the study direction. The most important cooperation activities are related to organisation of support, implementation of business projects of students, scientific cooperation and cooperation in development of the business education methodology. Once a year, enterprising RTU students implement business development projects, within which they develop projects in Latvia for one semester, but in the end go to the Anglia Ruskin University to participate in the *Cambridge Venture Camp*, where they study the Cambridge business ecosystems, present their projects, receive advice from international *mentors*. This activity is implemented in cooperation with the University of Latvia, the Riga School of Economics and the Connect Latvia association. In extending the cooperation between Riga and Cambridge, the Erasmus+ strategic partnership project “*European Entrepreneurship Training Community*” was started in 2018. Partners of this three-year project are the **Rotterdam Erasmus University in the Netherlands** and the *South-Eastern Finland University of Applied Sciences* in Finland. This project provides for joint scientific research, a cooperation network is established between students and teaching staff of partner universities, the developed methodology of business studies is improved and approbated in universities of all partner countries.

Regular cooperation with the **Inholland University of Applied Sciences** in the Netherlands started five years ago. Every year, RTU FEEM delegates its teaching staff to the international business education week organised by the Dutch partners. The partner university appreciates the high-quality performance of RTU teaching staff members in this event.

FEEM has been cooperating with the **PXL University of Applied Sciences & Arts** for several years. This cooperation includes exchange of experience, cooperation in doctoral studies. In 2019, the FEEM Unit of International Programmes organised the first study visit for a group of PLX students having received thanks from cooperation partners.

**University of South-Eastern Norway** (USN) has been a long-term cooperation partner from FEEM since 90s of the past century. This cooperation started within the scope of bachelor studies, but since 2003 RTU has been implementing the Norwegian-Latvian Master’s study programme “*Innovation and Entrepreneurship*” in cooperation with USN. Professor Kjell Gunnar Hoff was awarded the title of the RTU Doctor of Honour for his contribution to cooperation between Latvia and Norway in the field of higher education.

There is cooperation with the **Rotterdam Business School of the Rotterdam University of Applied Sciences** (Netherlands) within the scope of the study direction. The Global Business Week 2018 was held in Rotterdam in 2018. For the first time the event was organised for students and teaching staff, who were represented by teaching staff and students of the study direction. Overall, more than 600 students participated in the global business week, of which 60 international students came from 14 different countries, 4 different continents, as well as about 60 entrepreneurs and teachers.

A **BALTECH consortium** is functioning within the scope of the study direction, which is a virtual association of universities of countries of the Baltic Sea Region, which was established for the purposes of strengthening closer and wider cooperation between universities in the Baltic Sea Region. 6 technology universities united in this association: Riga Technical University; Kaunas University of Technology; Linköping University; Tallinn University of Technology; Vilnius Gediminas University of Technology; Royal Institute of Technology. The BALTECH consortium is an important forum for exchange of information and generation of ideas on what is happening in education, research and administration among universities of member states in the region. One of the main

tasks of the BALTECH consortium are: to ensure mobility of students, administrative and academic staff; to foster joint research projects; to create an informative network of the consortium; to actively participate in the development of policies in the field of education and science in countries of the Baltic region.

Since 1 September 2015, the Riga Technical University has become the **presiding university of the BALTECH consortium**, one of priority tasks of which is to promote closer cooperation between technical universities of Baltic and Nordic technical universities, thus making the Baltic Sea Region the centre of research and innovation in the European Union. In 2019-2020, changes are planned in the BALTECH consortium as Baltic technology universities join **NORDTEK**. In June 2018, the Riga Technical University organised the annual NORDTEK conference *"Changes in globalisation – challenges and opportunities for Nordic-Baltic higher education and research policy"*. NORDTEK is a consortium of technical universities of five Nordic countries (Sweden, Finland Norway, Iceland and Denmark), whose participants represent 27 universities and together more than 120,000 students, teachers and scientists. The matter of integration of members of BALTECH (Riga Technical University, Vilnius Gediminas University of Technology, Tallinn University of Technology, Kaunas University of Technology) in the NORDTEK consortium was considered at the conference. Within the conference, on 7 June 2018, the agreement on cooperation between NORDTEK and BALTECH technical universities in engineering education was approved at the meeting of NORDTEK rectors providing that:

- students of universities of the association may study in universities of NORDTEK partners;
- students may participate in doctoral courses organised by universities of NORDTEK partners;
- teachers may teach courses, prepared and improve courses in universities of NORDTEK partners.

In September 2018, the board of the BALTECH consortium adopted a decision that starting from 1 January 2019 BALTECH gets fully integrated in the Nordic NORDTEK network and, taking into account the transition period, BALTECH terminates its activities in 2020.

Since September 2017 University of Latvia and Riga Technical University, in cooperation with the **University at Buffalo (USA)** have launched a new interdisciplinary program of excellence which will be implemented by RTU Riga Business School (RBS). The studies will be conducted in English at the world's leading university standards coordinated by RBS. In the new program, IT competencies will be integrated with communication, project management, artistic, law, finance and other skills that will give students the foundation for a successful career in the digital era. Studies will be hosted by trainers with internationally leading academic and professional backgrounds. Students with excellent learning achievements and/or insufficient financial support will be eligible for financial industry scholarships.

Within the study direction, cooperation has been established with more than one hundred foreign higher education institutions (<https://www.rtu.lv/en/internationalization/mobility>). The FEEM has concluded more than 150 cooperation agreements with higher education institutions from more than 20 countries (see Appendix "List of cooperation agreements").

Students and academic staff of the study direction take advantage of study, teaching and experience exchange opportunities at the higher education institutions of the European Union (EU) member states. Currently, there is active cooperation with more than 95 EU universities (see the Figure).



**Figure:** Cooperation of the study direction with universities of EU Member States

More than 150 different cooperation agreements were signed within the scope of the study direction, incl. Erasmus+ mobility, EURAXESS, bilateral cooperation agreements, etc.: <https://www.rtu.lv/lv/internacionalizacija/mobilitate>

Student participation in summer schools is a useful way of promoting cooperation. For example, since 2011, students of the study direction have been attending the International Summer School of Economics in Serbia organized by the University of Nis. Students attend lectures, participate in workshops and present their country and university.

**Within the scope of the study direction visits of students from partner universities have been organized, for example:**

- Students of the Moscow State Regional University visited RTU FEEM, where there was an intensive course of lectures for students. There were lectures on different topics, as well as study visits to companies and institutions. During the visit FEEM teaching staff provided students with trips on the topics related to international business, tactical and financial aspects of international business, international communication, project management, global innovation management, spatial planning, etc.
- 17 students and 3 members of teaching staff from the *Rotterdam Business School of Rotterdam University of Applied Sciences* (Netherlands) visited RTU FEEM IBEM. During the study visit, Dutch students participated in a lecture in the study course “E-commerce and E-marketing”, where first-year students of the joint RTU and LAC programme “Creative Industries” presented the communication strategy of the study programme in social networks (Instagram, Facebook and LinkedIn) developed within the course.
- A group of logistics and industrial design students from IBCI Erasmus+ partner university Windesheim University of Applied Sciences (Netherlands) visited IBCI IBTEL. On the first day of the visit, there were lectures of IBTEL lecturers, but on the second day students visited SIA “Rīgas universālais termināls” and AS “Aldaris”.
- RTU FEEM IBCI organised the International Tax Week in Riga, which was attended by students and the dean, Dirks Kiso from the Münster School of Business, FH Münster, University of Applied Sciences, Germany as guests. FEEM and German students jointly attended lecturers

on several topics, including Latvian economy, taxes in Latvia and Germany, as well as a seminar on international taxation.

- The director of the FEEM Institute of CEREE, professor Ineta Geipele read lectures for members of the professional organisation *Association of Housing Initiative for Eastern Europe - IWO e.V. (Initiative Wohnungswirtschaft Osteuropa)* (Germany).

For the second year in a row, students of the Bachelor programme of Riga Business School (RBS) received a double diploma of RTU RBS and the partner university BI Norwegian Business School. In order to receive the double diploma of RTU RBS and BI Norwegian Business School, 2 third-year students studied the Bachelor programme in academic year 2017/2018. In the spring semester of 2018, RBS organised a training course Innovation and Entrepreneurship, which was mastered in RBS Bachelor programmes and seven students at University at Buffalo (State University of New York, United States). Within the study course students mastered knowledge about conditions in the domestic Baltic market and visited different companies in Latvia, Estonia and Lithuania.

## **5.2. Specify the system or mechanisms, which are used to attract the students and the teaching staff from abroad and provide a description of the dynamics of the number of the attracted students and the teaching staff.**

To attract foreign students to RTU, two communication target groups are mainly addressed:

1. the internal: management team; general staff, academic staff; existing students;
2. the external: prospective foreign students (foreign students studying in Latvia, foreign pupils and students, parents of foreign pupils and students); foreign graduates; mass media; opinion leaders; educational institutions; student recruitment education agencies; diplomatic and consular missions of the Republic of Latvia.

The communication strategy uses several types of information channels, choosing the most appropriate for each target audience – paid advertising channels, earned and owned ones. Marketing communication is an essential part of addressing foreign audience using all the traditional marketing tools – advertising in media and other channels, event marketing, direct marketing etc. The main marketing tool used to reach foreign audience is participation in various educational exhibitions and seminars organized by educational agencies in target markets. Continuity in the provision of information and promotion of studies is ensured by the long-term partner universities and educational agencies.

Public relations tools (press releases, media events, face-to-face meetings, interviews, opinion polls, etc.) and RTU social media channels (Facebook, WeChat, WhatsApp, YouTube, etc.) are used in corporate communication. RTU internal channels (ORTUS portal, email, etc.), information seminars and special events are used for internal communication.

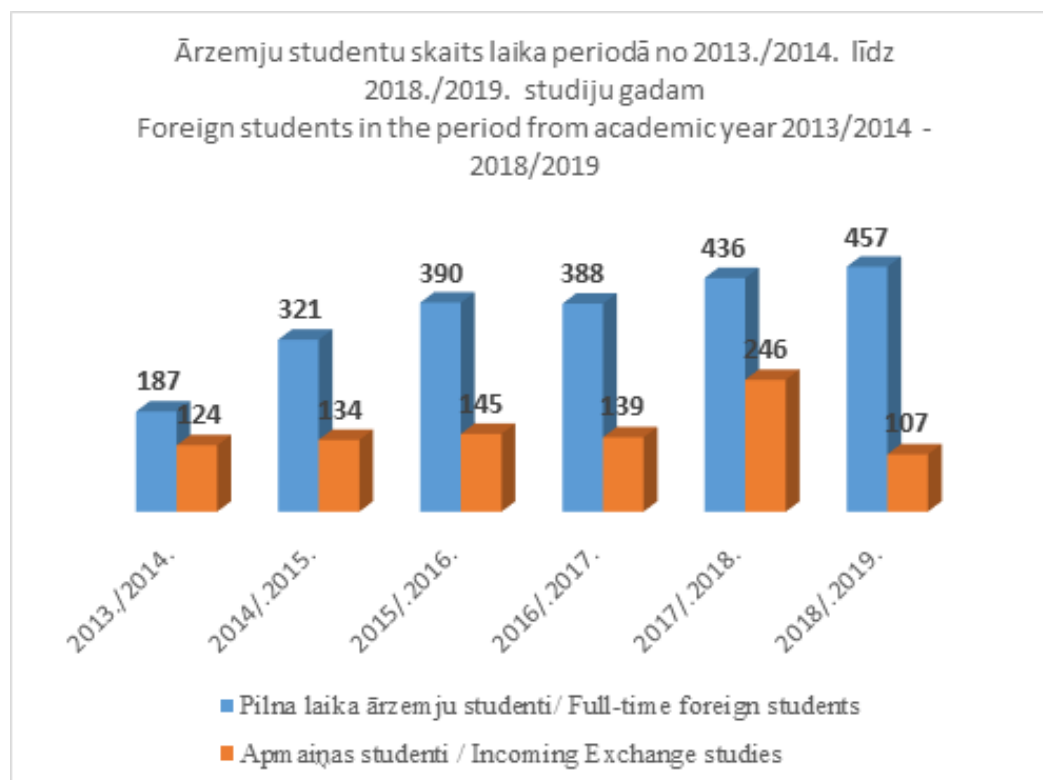
In the reporting period, the number of foreign students at RTU has increased rapidly in this year of studies reaching more than 3500 students.

The number of applications processed is much higher than the number of students actually enrolled. For example, in academic year 2015/2016, 626 applications were received from prospective students, while 349 students commenced their studies; however, in academic year 2016/2017, 670 applications were received, but 445 students were enrolled.

The Figure shows changes in the number of full-time and exchange foreign students in the period



from academic year 2013/2014 to academic year 2018/2019.



**Figure.** Number of full-time and exchange foreign students in the period from academic year 2013/2014 to academic year 2018/2019

**2 967 foreign students** studied in the study direction in the reporting period, of which 2179 or 70% were full-time foreign students and 895 or 30% were exchange students. The number of foreign exchange students increased by 107 students compared to academic year 2016/2017. The increase is related to two summer schools organised by RTU. The total number of foreign students increased more than 3 times compared to the beginning of the period, which is a serious increase. The increase in foreign students indicated that the interests of foreign students in studies in Latvia increases year on year.

The distribution of incoming students by countries is demonstrated in the attached figure "Breakdown of incoming students by country".

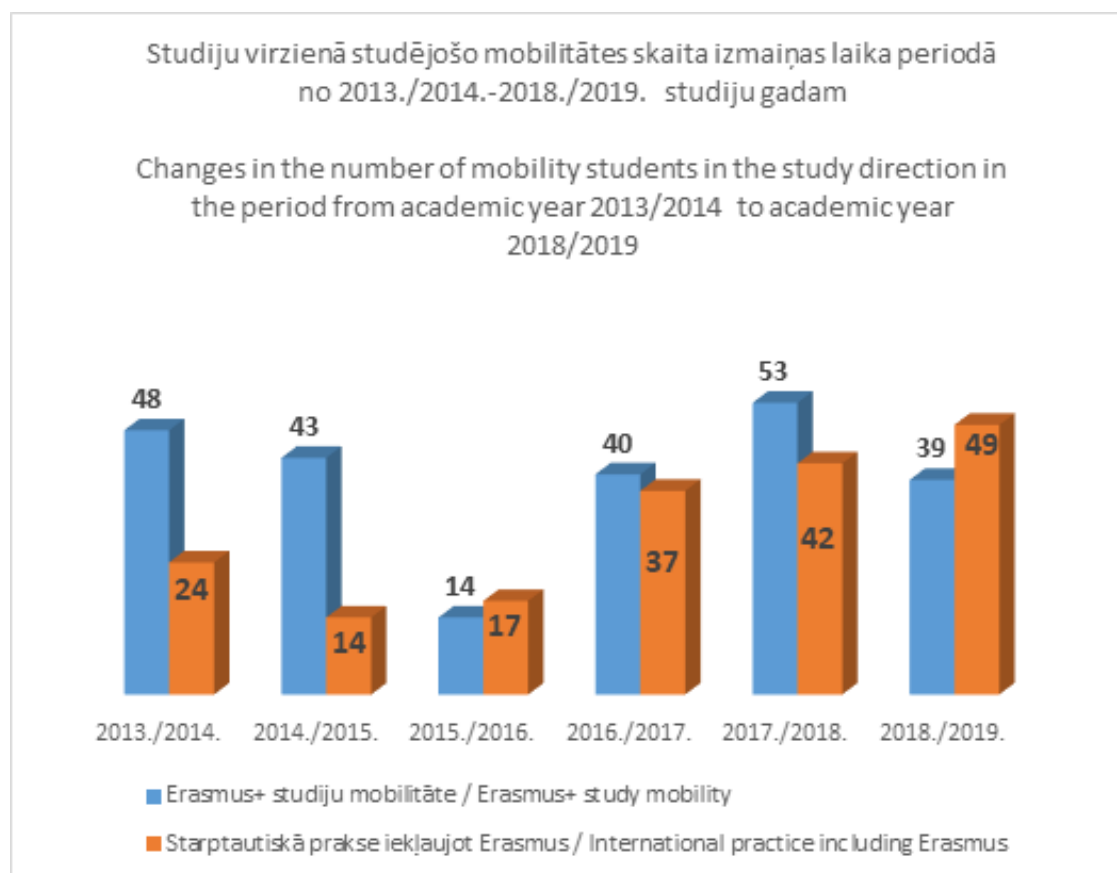


**Figure.** Breakdown of incoming students by country.

As it can be seen from the figure above, most students come from Germany, France, Italy, Spain,

the Czech Republic and the Netherlands. Within the Erasmus+ program, incoming students are not divided at the Faculty by particular programmes, as they choose the study courses offered by the FEEM study programs themselves.

The increase in foreign students in the study direction shows that the study programmes and study subjects in English are becoming increasingly more in demand in the international environment.



**Figure.** Changes in the number of mobility students in the study direction in the period from academic year 2013/2014 to academic year 2018/2019.

In the reporting period, **198 students** of the study direction **used exchange studies** in the Erasmus+ mobility programmes. Erasmus **internship exchange** opportunities abroad were used by **183 students**.

Apart from participation in international exchange programme, students can also make educational trips to foreign countries within the scope of the direction. FEEM students also actively participate in Summer Schools and other student mobility activities organised by different universities.

Study trips are organised to improve the study process, and for students, who have proved themselves as motivated and active students, this is an additional bonus in gaining new experience.

- In the spring semester of 2018, 14 full-time RTU RBS Master students (IGV1) went to a study trip to Shanghai (China). The training took place in the university – *Deutsche Management Akademie Niedersachsen* (DMAN), where students obtained knowledge about international experience in enterprise management, economic development nowadays in China, legal regulation of Chinese business, as well as attended leading companies and obtained international experience in enterprise management.
- Student of the RTU FEEM study programme “Entrepreneurship and Management” Viktorija Babiča met the Crown Princess Victoria and HRH Prince Daniel of Sweden at the Stockholm

School of Economics in Riga. Together with other seven members of the “Academy of Young Leaders”, there was an opportunity to participate in one-hour useful and very pleasant discussion on leadership, business and policy matters in Latvia, environmental problems of the Baltic Sea Region and its future.

- Six students from FEEM were selected to go to Niš, Serbia, to participate in the project “International Summer School of Economics”. “International Summer school of Economics” has been held for the 13th year, each time bringing together youths from different countries to learn about topics related to economics. This year, students from Russia, Serbia and Slovenia joined our Latvian group, where they participated in lectures and workshops on digital marketing. In order to use the obtained knowledge in practice, participants created marketing campaigns on Facebook in international teams during the project.

Starting from February 2018, every semester FEEM Council approved the list of study courses “FEEM **ERASMUS+ module**” included in the Erasmus+ student mobility programme.

Overall, 17 study courses from different departments have been approved. This module includes courses of the study direction, for example, *Supply Chain Management and Freight Forwarding, Organization of International Purchasing Process, Startup entrepreneurship, Corporate Finance, Quality Technologies and Management, Innovation Technologies, Strategy and Change Management*. The students acquire study courses together with Latvian students in English. This is a very good practice, from which local students benefit as they get the opportunity to communicate with foreign students and improve their foreign language skills.

Information on the involvement of foreign academic staff is provided in Section 3.6.

**5.3. In the event that the study programme entails a traineeship, provide a description of the traineeship options offered to the students, as well as the provision, and work organisation. Specify whether the higher education institution/ college provides assistance in finding traineeships.**

The “RTU Career Day” tradition, which has been organised since 2004, continues successfully. Once a year, the Career Support and Services Unit organises the RTU Career Day, when all RTU, including FEEM, students can learn about sectoral companies, as well as meet company representatives in person, learn about work and internship opportunities.

More information about the event and participants of the previous years is available at <http://karjera.rtu.lv/projekti/karjeras-dienas-arhivs/> (in Latvian).

The purpose of the career day is informing students majoring in engineering, natural and social sciences about the best and leading companies in the respective fields, and bringing them closer to potential partner companies for undertaking internship and employers. The purpose and interests of students are to obtain information about available internship and job opportunities, as well as to learn information about the sector and the current situation on the labour market. The purpose and interests of companies are to attract new employees, establish contacts with students and popularise the company. This is the day, when potential employers can meet potential employees. The positive thing is that the number of those companies has increased over the last two years, which are interested exactly in the specialists prepared by FEEM and RBS.

RBS follows up professional development of students on a regular basis, including career progress, positions taken, etc. RTU is actively searching for internship for its Bachelor students through its

network of graduates and other partner companies, for example, RIMI, Statoil, airBaltic, Deloitte, Citadele, SEB banka and other. All students of the RBS Bachelor programme have placement during three years of studies and work in summer.

On 12 April 2018, the first FEEM Career Day organised by the Student Self-government was held at RTU FEEM with participation of 14 Latvian companies. This was an excellent opportunity for students to learn about potential future jobs, as well as establish valuable contacts. The purpose of the event is to inform students of social and technical sciences about industry companies, make students and potential employers closer. At the same time, the "RTU Career Day" shows the situation in the labour market. Every year, the number of those companies increases, which are interested to participate.

In October 2019, companies of interest to students of the faculty were invited to the FEEM Career Week to tell about themselves, their operations and potential internship and job opportunities, as well as there were several visiting lectures:

- On the Enterprise Day on **29 October**, there was an opportunity to **see daily work of employees of the State Revenue Service** and meet representatives of professions and get acquainted with employees of the tax and customs police board, as well as see the cynology department of the customers board, meet working dogs and see how they work.
- **29 October, Ernests Štāls**. All of co-founders of the Techcill conference, member of the board of start-up "Dripit.io", knower of new technologies, told about his experience in business, organisation of projects, as well as public speaking.
- **30 October Artūrs Zeps**. RTU Vice-rector for development, FEEM teaching staff, also former president of the RTU Student Parliament. He told how to build career at RTU, as well as told his story, how he had reached where he was.
- **30 October Enno Ence** - graduate of the RTU FEEM Business and Innovation study programme and founder of MILZU! and member of the board of the RTU Alumni Association.
- **31 October Claudio Rivera** - director of the RBS BBA programme. We face many challenges, when we build our career. Claudio told an inspiring story on how to build career abroad and how important it is for growth of the person.

**5.4. In the event that joint study programmes are implemented in the study direction, provide the justification of the creation of the joint study programmes and a description and assessment of the selection of the partnering higher education institutions by including information on the principles and the procedures for the creation and implementation of these joint study programmes. In the event that no joint study programmes are implemented in the study direction, provide a description and assessment of the plans of the higher education institution/ college for the creation of such study programmes within the study direction.**

The development and implementation of joint study programmes are governed by "Procedure for the application, elaboration and amendment of the study programmes" (see the file of Appendix 06 of the list of Internal regulations). The choice of partner higher education institutions is the responsibility of the initiator of the joint study programme development, in agreement with the Study Direction Committee and RTU Vice-Rector for Academic Affairs.

In August 2017, a licence was received entitling to implement a new three-year academic Bachelor study programme "Creative Industries" jointly with the Latvian Academy of Culture (LAC). The

programme “Creative Industries” has been created to prepare entrepreneurs in creative industries, who understand business processes and regularities, know business models and find their way in culture and art, are able to see the potential of cultural contribution to business, understand processes of artistic creation and are able to be creators of innovation. Interdisciplinary study classes will be organised in rooms of LAC and RTU FEEM.

Presently, active work is ongoing on the preparation of an application for a project under specific support objective 8.2.1 “To reduce fragmentation of study programs and to strengthen resource sharing” and creation of a new Master’s study programme.

## **II - Description of the Study Direction (6. Implementation of the Recommendations Received During the Previous Assessment Procedures)**

**6.1. Assessment of the fulfilment of the plan regarding the implementation of the recommendations provided by the experts during the previous accreditation of the study direction, as well as the assessment of the impact of the given recommendations on the study quality or the improvement of the study process within the study direction and the relevant study programmes.**

The previous study direction “Management and Administration, Real Estate Management” was accredited by decision No. 123 on 12 June 2013.

The opinion provided by experts contained several recommendations and suggestions for improvement of development of the study direction.

**Improvement of the level of knowledge of foreign language of teaching staff.** Teaching staff gets free courses of English in two RTU organisational units – the Institute of Applied Linguistics of the Faculty of E-Learning Technologies and Humanities, or the English Language Centre of the Riga Business School. In order to improve transparency of recognition of English in RTU lecturers, on 17 June 2019 the RTU Senate adopted the decision “On the Approval of the Procedure of Certification of Foreign Language Skills of RTU Employees”. Methods of certifying the level of foreign language skills of an RTU employee were included into it. The issued procedure ensures that the involved academic staff, which teaches study courses in English has mastered it at least at level B2. . Employees are also invited to the RTU English Language Discussion Club. For more information on qualification improvement activities see Section 3.6.

The **availability of the library** virtually and physically **has been significantly improved and extended** in the reporting period. Since autumn 2017, the RTU Scientific Library provides RTU students with 24h reading room enabling them to study also late in the evening and at night, when the library and faculties are not working. On the ORTUS portal students have access to academic and professional databases, incl. ProQuest Ebook Central, EBSCOhost eBook Academic Collection in the field of business and economics. The databases are updated and supplemented on a regular basis enabling students to follow academic news in the areas of their interest.

Due to the strategy of internationalisation of the direction the number of **visiting teaching staff has significantly increased**. On 26 November 2018, RTU adopted internal regulations “Procedure of Involvement and Employment of Visiting Academic Personnel at RTU”. The issued document

accurately defined requirements, conditions of admission of visiting teaching staff and the procedure of the teaching process. For a detailed statistics on the foreign teaching staff involved by FEEM and the overview of content see 2 parts of Section 3.6 on incoming mobility.

In order to **support scientific contribution to the study course process** more completely, general scientific indicators of the directions have improved in the reporting period. Teaching staff does scientific research work – participates in research projects, writes publications and speaks at conferences. For more information on achievements in the field of science see part 4 of the self-assessment report.

Several study programmes did not have any specific recommendations related to the need to improve the curriculum of the study process in the accreditation report of 25 March 2012 – first level professional study programme “Real Estate Management”, Bachelor’s study programme “Real Estate Management”, professional Bachelor’s study programme “Business Logistics”, professional Bachelor’s study programme “Organization and Management of International Economic Relations”, academic Bachelor’s study programme “Entrepreneurship and Management”, professional Master’s study programme “Innovation and Entrepreneurship”, academic Master’s study programme “Entrepreneurship and Management”, academic Master’s study programme “Industrial Engineering and Management”, professional Master’s study programme “Organization and Management of International Economic Relations”, professional Master’s study programme “Management of Enterprises and Organisations”. Final assessment: *“Programmes considered to be sustainable”*

## **6.2. Implementation of the recommendations given by the experts during the evaluation of the changes to the relevant study programmes in the respective study direction or licensed study programmes over the reporting period or recommendations received during the procedure for the inclusion of the study programme in the accreditation form of the study direction (if applicable).**

One study programme – academic Bachelor’s study programme “Creative Industries” created jointly with the Latvian Academy of Culture was licenced in the reporting period. Licence of the study programme No. 04051-173, issued on 16 June 2016.

See Appendix 3 for a plan for implementing the recommendations received during licensing process.

# Annexes

I. Information on the Higher Education Institution/ College		
List of the governing regulatory enactments and regulations of the higher education institution/ college	List of the main internal normative acts and regulations.zip	Saraksts ar galvenajiem iekšējiem normatīvajiem aktiem un regulējumiem.zip
Information on the implementation of the study direction in the branches of the higher education institution/ college (if applicable)		
Management structure of the higher education institution/ college	RTU_strukturvienibas_febr2020_eng.pdf	RTU_strukturvienibas_febr2020.pdf
II. Description of the Study Direction - 1. Management of the Study Direction		
Plan for the development of the study direction (if applicable)	Development Plan of Study Direction from 2020 - 2025.pdf	Studiju virziena attīstības plāns no 2020.-2025. gadam.pdf
Management structure of the study direction	RTU_Study_Direction_Management_Structure.pdf	RTU_studiju_virziena_parvaldibas_struktura.pdf
II. Description of the Study Direction - 3. Resources and Provision of the Study Direction		
Basic information on the teaching staff involved in the implementation of the study direction	Pamatinformācija par studiju virziena īstenošanā iesaistītajiem mācībspēkiem.xlsx	Pamatinformācija par studiju virziena īstenošanā iesaistītajiem mācībspēkiem.xlsx
Biographies of the teaching staff members (in Europass Curriculum Vitae format)	Akadēmiskā personāla saraksts un CV_ENG.7z	Akadēmiskā personāla saraksts un CV_LV.7z
Summary of the statistical data on the incoming and outgoing mobility of the teaching staff over the reporting period	Ingoing_outgoing_mobility_during_the_reported_period.pdf	Ienākošā_izejošā_mobilitāte_pārskata_periodā.pdf
II. Description of the Study Direction - 4. Scientific Research and Artistic Creation		
List of the publications, patents, and artistic creations of the teaching staff over the reporting period	Virzienā_iesaistītā_akadēmiskā_personāla_publicācijas.pdf	Virzienā_iesaistītā_akadēmiskā_personāla_publicācijas.pdf
II. Description of the Study Direction - 5. Cooperation and Internationalisation		
List of cooperation agreements	Sadarbības_līgumu_saraksts_Cooperation_agreements.pdf	Sadarbības_līgumu_saraksts_Cooperation_agreements.pdf
Statistical data on the teaching staff and the students from abroad	Statistical data on foreign students.pdf	Statistikas_dati_par_ārvalstu_studējošajiem.pdf
Statistical data on the mobility of students (by specifying the study programmes)	International student mobility .pdf	Starptautiskā_studentsu_mobilitāte .pdf
Description of the organisation of the traineeship of the students	Internship_Management_Procedure.pdf	Prakses_organizēšanas_kartība.pdf
Information on the agreements and other documents confirming the traineeship of the students in companies	Student's internship companies in the reporting period.pdf	Studējošo_prakses_nodrošinājums_uzņēmumos_pārskata_periodā.pdf
II. Description of the Study Direction - 6. Implementation of the Recommendations Received During the Previous Assessment Procedures		
Overview of the implementation of the provided recommendations	Annex 3_Implementation_of_recommendations-EN.pdf	3. Pielikums_Rekomendāciju_ieiešana.pdf
Description of the Study Programme - Other mandatory attachments		
Confirmation signed by the rector, director or the head of the study programme or the study direction of the higher education institution/ college which states that the official language proficiency of the teaching staff involved in the implementation of the relevant study programmes of the study direction complies with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.	02000-2.2.1-e_10.edoc	02000-2.2.1-e_10.edoc
III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)	4.pielikums_Kopīgās_studiju_programmas_atbilstība_Augstskolu_likuma prasībām.pdf	4. Pielikums - Kopīgās studiju programmas atbilstība Augstskolu likuma prasībām.pdf
Statistics on the students over the reporting period		Statistika.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard		6. Pielikums - Studiju programmas "Radošās industrijas" atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme		
Curriculum of the study programme (for each type and form of the implementation of the study programme)		
Descriptions of the study courses/ modules		
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.		
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued		
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme		
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement		
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

Description of the Study Direction - Other mandatory attachments		
Electronically signed application form for assessment of a study direction	01000-2.2.1-e_33.edoc	01000-2.2.1-e_33.edoc



## Other annexes

Name of document	Document
RTU Stratēģija / Strategy	Strategija_RTU.pdf
RTU_Excellence_Approach.pdf	RTU_excellence_approach.pdf
RTU_Izcilibas_pieejja	RTU_izcilibas_pieejja.pdf
RTU Excellence Approach	RTU_Excellence_approach.jpg
RTU Izcilibas pieejja	RTU_Izcilibas_pieejja.jpg
RTU Izcilības pieejas struktūra	RTU_Izcilibas_pieejas_struktura.jpg
Structure of RTU Excellence Approach	RTU_Excellence_approach_structure.jpg
Procedure for Submission and Examination of RTU Students' Proposals and Complaints	Procedure_for_Submission_and_Examination_of_RTU_Students'_Proposals_and_Complaints.pdf
RTU studējošo priekšlikumu un sūdzību iesniegšanas un izskatīšanas kārtība	RTU_studeoso_priek_un_sudz_iesn_un_izsk_kart.pdf
ESG 1. daļas standartu integrēšanas raksturojums	ESG_standartu_integresanas_raksturojums.pdf
Viesmācībspēku nodarbināšanas kārtība	Viesmācībspēku nodarbināšanas kārtība.pdf
RTU IT sistēmu saskarnes / Screenshots of RTU IT systems	RTU_IT_sistemas.zip
Integration description of the first part of ESG standards	ESG_standards_integration_description.pdf
Vienotā darba samaksas kārtība RTU	RTU_dsk_speka_no_01012018_izmainiju_09_03_2018_1_(2).pdf
Unified Work Remuneration Procedure at Riga Technical University	Unified_Work_Remuneration_Procedure_at_Riga_Technical_University.pdf
Citi pielikumi Starptautisko ekonomisko sakaru organizēšana un vadīšana bakalaura LV un EN.zip	Citi pielikumi Starptautisko ekonomisko sakaru organizēšana un vadīšana bakalaura LV un EN.zip
Citi pielikumi Starptautisko ekonomisko sakaru organizēšana un vadīšana maģistrs LV un EN.zip	Citi pielikumi Starptautisko ekonomisko sakaru organizēšana un vadīšana maģistrs LV un EN.zip
Citi pielikumi Uzņēmējdarbības loģistikai LV un EN.zip	Citi pielikumi Uzņēmējdarbības loģistikai LV un EN.zip
Study program MMZO agreement.pdf	Study program MMZO agreement.pdf
Studiju virziena komisijas sastāvs	Studiju virziena komisijas sastāvs.pdf
Study direction commission members	Study direction commission members.pdf
Studiju programmu pašnovērtējuma darba grupas	Studiju programmu pašnovērtējuma darba grupas.pdf
Programmes self-assessment working groups	Programmes self-assessment working groups.pdf
IEVF didaktikas un profesionālās pilnveides pasākumu plāns / Plan of FEEM didactic and professional improvement activities	IEVF didaktikas un profesionālās pilnveides pasākumu plāns_Plan of FEEM didactic and professional improvement activities.pdf

# Business Logistics

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Business Logistics</i>
Education classification code	<i>42345</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Ingūna</i>
Surname of the study programme director	<i>Jurgelāne-Kaldava</i>
E-mail of the study programme director	<i>Inguna.Jurglane-Kaldava@rtu.lv</i>
Title of the study programme director	<i>Asociētā profesore, Dr.oec.</i>
Phone of the study programme director	<i>67089553</i>
Goal of the study programme	<i>To train qualified, internationally competitive specialists in the fields of logistics and transport economics conforming to the approved occupational standard requirements (Logistics manager), as well as to provide students with theoretical and practical knowledge that ensures the basis and professional competence in the field of logistics and transport economics.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li>- <i>To provide competitive education in the fields of logistics and transport economics in line with the Bachelor level, the professional standard and the international environment;</i></li> <li>- <i>To provide students with comprehensive knowledge, to develop analytical thinking, to develop skills and competences, as well as to promote practical work skills, preparing students for the labor market;</i></li> <li>- <i>To ensure the development and improvement of the content of the study program, the study process, as well as scientific research work in accordance with international internship and the latest software, scientific and technological discoveries and innovative methods;</i></li> <li>- <i>To stimulate students' interest in further professional development and improvement of their academic knowledge, to continue their studies at the Master level, to improve their qualification, as well as to develop interest in research work and to promote the use of these skills;</i></li> <li>- <i>To stimulate students' interest in the processes taking place in the community, as well as to promote ethical and socially responsible personalities.</i></li> </ul>
Results of the study programme	<ul style="list-style-type: none"> <li>- <i>Ability to plan and organize the logistics processes;</i></li> <li>- <i>Ability to manage and analyze logistics processes;</i></li> <li>- <i>Ability to implement logistical control measures;</i></li> <li>- <i>Ability to control logistics processes;</i></li> <li>- <i>Ability to manage the work of the logistics unit;</i></li> <li>- <i>Ability to plan flows of goods and services in regional markets;</i></li> <li>- <i>Ability to work with information and communication technologies;</i></li> <li>- <i>Ability to track and manage logistics cost and revenue estimates and payment flow;</i></li> <li>- <i>Ability to fulfill general professional tasks.</i></li> </ul>
Final examination upon the completion of the study programme	<i>Bachelor Thesis</i>

# Study programme forms

## Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General Secondary or vocational secondary Education, or First Level Professional Higher Education in Business and Management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor Degree in Business Logistics</i>
Qualification to be obtained (in english)	<i>Logistics manager</i>

## Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

## Part time extramural studies - 5 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>5</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General Secondary or Vocational Secondary Education, or First Level Professional Higher Education in Business and Management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor Degree in Business Logistics</i>
Qualification to be obtained (in english)	<i>Logistics manager</i>

## Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

The study program is planned to be implemented in the form of full-time intramural and part-time extramural studies in Latvian. Each of these forms of study has a different duration, but the same number of credit points. To date, the program has been implemented in the form of full-time intramural and part-time extramural studies.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Analyzing changes in the number of students in academic year 2013/2014, it can be concluded that the total number of students decreased from 407 to 264 students or by 35.13 % in academic year 2018/2019 (Appendix 5). This can be explained by demographics and the decrease in the total number of students in the country, as well as by the fact that the tuition fee was increased, but the number of state budget funded seats was not increased during the last 6 years. However, statistics show that in academic year 2017/2018 and 2018/2019 the number of students decreased. In turn, in academic year 2019/2020 it has already increased to 264 students.

Analyzing by the types of funding, there are only 23 state budget funded seats within the program, which is 8.72% of the total number of students. This is a positive factor as it indicates the quality and demand for the study program in the labor market, at the same time it serves as a negative factor - many students who would like to study at the program cannot afford it and choose another programs with more state budget funded seats. Each year, in the process of enrolling young students, there is a very high competition for state budget funded seats - about 50 students per state budget funded seat (*Appendix 1.2.1. Enrollment statistics in the professional Bachelor's study program*). This reflects the high appreciation of the program by potential students.

Analyzing the dynamics of the number of full-time and part-time students, it can be observed that the number of part-time students is stable and does not change significantly, but the number of full-time students from academic year 2013/2014 until

2017/2018 decreased by 15.75% on average annually, but in academic year 2018/2019 it increased by 7.5% compared to the previous period.

The dropout rate of the students is the highest in the first and second years, mostly due to poor study results (see Appendix 5). Those who have indicated that they choose to withdraw from the program say that they have started working and that they cannot combine work with education as well as that they have not made a sound choice in their profession. Only 12 students have been transferred to another program over a six-year period, which is about 3% of the total number of students enrolled in the program.

The professional Bachelor study program “Business Logistics” is implemented only in Latvian, however, the study process includes some study courses in English.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The main tasks of the study program are as follows: to provide competitive education in the field of logistics and transport economy corresponding to the bachelor's level, profession standard and international environment; to provide students with comprehensive knowledge, to develop analytical thinking, to develop skills and competences, as well as to promote practical work skills, preparing students for the labor market; to ensure the development and improvement of the content of the study program, the study process, as well as scientific research work in accordance with international practice and the latest software, scientific and technological investigations and innovative methods; to stimulate students' interest in further professional development and improvement of their academic knowledge, to continue their studies at Master's level, to improve their qualification, as well as to develop interest in research work and to promote the use of these skills; to stimulate the students' interest in the processes of the society, as well as to promote the development of ethical and socially responsible personalities.

The specific aims and tasks of the program are defined in accordance with the strategic aim and main tasks in cooperation with specialists and employers in the field of transport and logistics.

The study program “Business Logistics” is designed to educate and train logistics managers in the field of logistics and transport economics according to the requirements of the global labor market. The main emphasis in the study process is placed on the development of professional and practical competences based on scientific achievements, theoretical knowledge and field specifics. Considering the specifics of the field, some of the courses are conducted in English in order to improve

the use of professional terminology in the context of cross-border business and to facilitate co-operation with structures, institutions, organizations and companies of other countries. Academic staff of the University as well as representatives of the industry and highly qualified practitioners, whose practical experience has been gained and developed at the companies and institutions of the field, are involved in the implementation of the study process.

Upon completion of the study program, the student acquires a Professional Bachelor Degree in Business Logistics and a 5th level qualification of Logistics manager.

The professional Bachelor study program “Business Logistics” is unique as it is the only one in Latvia to award both a Professional Bachelor Degree in Business Logistics and a 5th level qualification Logistics manager, so companies in the field are interested and involved in the process of training young professionals.

Students with general secondary education or 4-year vocational secondary education, or first-level higher professional education in business and management are admitted to the professional Bachelor level study program. Applicants are admitted to the full-time and part-time undergraduate programs based on the results of centralized exams (CE) in mathematics, physics, Latvian and foreign languages and annual grades in certain subjects in the secondary education document.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master’s and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The volume of the professional Bachelor study program is 160 CP, which consists of study courses (122 CP), internship (26 CP) and state examination (12 CP). The choice of Bachelor program study courses, the volume and content of study courses, as well as the content of the internship have been developed according to the professional degree and qualification to be acquired in accordance with the occupational standard of Logistics manager

During the course of studies, the student develops and defends at least three study papers (study projects). During the development of study projects students carry out research on the labor market, analysis of real companies, and research on the

logistics industry in general, analyzes the companies of the sector, their activities, performs economic calculations to improve the performance of the companies.

Almost every year changes are made in the content of the study courses and in the content of the study program, in accordance with the trends of the field, as well as the recommendations of the students for the improvement of the program content. In the academic year 2013/2014 and 2014/2015 no significant changes were made to the study program. The content of the study courses was reviewed and analyzed, the existing study courses were supplemented and updated, and the latest teaching methods were integrated. The programs of the individual study courses were revised, integrating the latest teaching methods, and supplemented with the most topical topics. As needed, new lecturers were recruited for the implementation of different study courses.

Significant changes were made to the study program in the academic year 2016/2017. The total amount of the compulsory (A) part of the study program was increased from 82 CP to 73 CP, but the amount of the compulsory elective (B) part from 34 CP to 43 CP, respectively - in part B.1 the volume of study courses increased from 26 CP to 35 CP, but and in the *Humanities, Social courses* (B.2) and *Languages* (B.6) changes was not made. The title of the final examination was changed from *Diploma Project* 12 CP to *Bachelor Thesis* 12 CP.

From compulsory (A) part of the study program study courses *Communication Basics* 2 CP, *Mathematics for Economists* 4 CP, *Analysis of Economic Processes* 3 CP, *Commodity Science of Export and Import* 2 CP and *Business Logistics* 2 CP were excluded. Part A of the study program also replaced study courses *Introduction into Specialty* 1 CP replaced by *Introduction into Study Field* 1 CP, *Business Communication* 2 CP replaced by *Business Communication* 3 CP, *Microeconomics* 3 CP and *Macroeconomics* 3 CP replaced by *Economics* 4 CP, *Mathematics* 4 CP replaced *Mathematics* 5 CP, *Business Economics* 2 CP replaced by *International Business Planning* 2 CP, *Computer Science (basic course)* 3 CP replaced by *Business Data Analysis Technologies* 3 CP, but *Computer Science for Economists (study project)* 2 CP replaced by *International Business Planning (study project)* 2 CP. From part B.1 of the study program, study course *Business Logistics* in the amount of 2 CP was excluded, but the course in *Commodity Science of Import and Export* in the amount of 2 CP was included.

In order to increase the competitiveness of the study program and to improve the content of the program, the content of the study program has been changed during the academic year 2017/2018. From professional specialization compulsory part (A) A.3 were excluded study courses *Business Communication* 3 CP, *International Economic Relations* 2 CP, *Economic Information Systems* 3 CP, *Special English* 2 CP, including *International Business Etiquette and Communication* 3 CP, *Terminal and Warehouse Management* 3 CP and *Research work* in the amount of 4 CP. In *Compulsory elective study courses* (B part) professional specialization (B.1 part) courses study courses *Internationsl Economc Relations* 2 CP and *Record-keeping in*

*International Companies* were included, but from Humanities and Social Courses (B.2 part) *Business etiquette* in the amount of 2 CP was excluded.

During the academic year 2018/2019, significant changes were made to the study program. The volume of Part A *Compulsory study courses* was changed from 73 CP to 100 CP, respectively – the total volume of Part A.1 *General education study courses* reduced from 13 CP to 12 CP, in Part A.2 *Field specific theoretical basic study courses and IT study* the total courses volume increased from 27 CP to 36 CP, but in Part A.3 *Field specific professional study courses* the total courses volume increased from 33 CP to 52 CP. Part B - s *Compulsory elective study courses* was reduced from 43 to 16 CP, respectively, in part B.1 *Field-specific study courses*, reducing from 35 to 8 CP. No changes were made to the Humanities and social sciences study courses (B.2 part) and Languages (B.6 part).

From the compulsory part A.1 *General education study courses*, study courses *Mathematics* in the amount of 5 CP, *Statistics* in the amount of 3 CP, *Quantitative Methods in Economics* in the amount of 3 CP were excluded, including study courses *Business Management* 2 CP, *International Business Planning* 2 CP, *Research Work* 4 CP, *Work Environment and Ergonomics* 2 CP.

From the compulsory part A.2 *Field specific theoretical basic study courses and IT study* were excluded: *Transport and organization of Transportation* 4 CP, *Marketing* 3 CP, *Taxes and Duties* 3 CP, *Legal Basics of Business* 2 CP, *Legal Organization of Transport Services* 2 CP, *Business Administration* 2 CP, *Business Logistics* 2 CP, *Business Logistics (Study Project)* 2 CP, including *Mathematics* 5 CP, *Statistics* 3 CP, *Quantitative Methods in Economics* 3 CP, *Fundamentals of Logistics* 2 CP, *Logistics Systems Simulation* 3 CP, *Principles of Finance* 2 CP, *Accounting* 2 CP, *Taxes and Duties* 2 CP, *Basics of Quality Management* 3 CP, *Record Keeping in International Companies* 2 CP, *National Economy of Latvia* 2 CP.

From the compulsory part A.3 *Field specific professional study courses*, study courses *Business Data Analysis Technologies II* 2 CP, *Logistics Systems Simulation* 3 CP, *Work Environment and Ergonomics* 2 CP, *Principles of Finances* 2 CP, *International Business Planning* 2CP *Transport Commercial Operation* 2 CP, *Transport Commercial Operation (study project)* 2 CP, *Business logistics* 2 CP, *International Business Etiquette and Communication* 3 CP, *Organization of Terminals and Warehouses* 3 CP, *Research work* 4 CP, but included study courses *Transport and Organization of Transportation* 4 CP, *Legal Organization of Transport Services* 2 CP, *Supply Chain Management and Freight Forwarding* 2 CP, *Risks and Insurance in Transport* 2 CP, *International Trade* 2 CP, *Transport Economics and Commercial Operation* 4 CP, *Logistics (study project)* 2 CP, *Transport Economics and Commercial Operation (study project)* 2 CP, *Logistics* 2 CP, *International Economic Relations and Globalization* 4 CP, *Organisation of Traffic and Environment Protection* 2 CP, *Commodity Science of Export and Import* 2 CP, *Third Party Business Logistics* 2 CP, *Management of International Transportation* 2 CP, *Personnel Management (Basic Course)* 2 CP, *Hazardous Goods Transportation* 2 CP, *Organization of International Purchasing*



*Process 2 CP, Customs Legislation in Latvia and Abroad 2 CP, International Marketing 2 CP, Legal Basics of Entrepreneurship 2 CP and Modelling of Transportation Processes 2 CP.*

From the part B.1 *Field-specific study course*, the following study courses were excluded: *Commodity Science of Import and Export 2 CP, Third Party Business Logistics 2 CP, Inventory Regulation 3 CP, International Trade 3 CP, Customs Organization and Control 3 CP, Customs Legislation in Latvia and Abroad 2 CP, Supply Chain Management and Freight Forwarding 2 CP, Fundamentals of Transport Infrastructure and Engineering 2 CP, Risk and Insurance in Transport 2 CP, Modelling of Transportation Processes 2 CP, Organisation of Traffic and Environment Protection 2 CP, Quality Systems Management 2 CP, Hazardous Goods Transportation 2 CP, Management of International Transportation 2 CP, Personnel Management (Basic Course) 2 CP, Transport and Organization of Transportation 2 CP, International Transport Law 2 CP, Material Science Basics 2 CP, E-Commerce 4 CP, Logistics Systems Management Tools 2 CP, National Economy of Latvia 2 CP, International Economic Relations 2 CP, Record Keeping in International Companies 2 CP* and including study courses *International Labor Law 2 CP, Intercultural Communication 2 CP, International Business Etiquette and Communication 3 CP, Multimodal Cargo Transportation 3 CP, Organization of Terminals and Warehouses 3 CP.*

In its turn, the study courses *Special German 2 CP* and *Special French 2 CP* were excluded from the Study Program Part B6 “Languages”, instead, the study courses *German 2 CP* and *French 2 CP* was included.

During academic year 2019/2020 changes were made to the study program. From the Part A.3 *Field specific professional study courses* the study course *Commodity Science of Export and Import 2 CP* was excluded, including study course *International Labour Law 2 CP*. From the part B.1 *Field-specific study course* the study course *International Labour Law 2 CP* was excluded, including study course *Commodity Science of Export and Import 2 CP*.

In order to consolidate theoretical knowledge and gain practical experience in the field, the internship of 26 CP is implemented. The higher education institution concludes an internship agreement with the student and employer. When defining the aims and tasks of the internship, the content of the internship includes the student's acquaintance with the management structure and operating principles of the company where the students undertakes internship, the specifics of the field, etc. Representatives of the organizations with whom the internship agreement on the implementation of the internship has been concluded take part in setting the aims and tasks of the internship and evaluation. The student achieves the aim of the internship based on the acquired knowledge, skills and competence.

The structure of the program and other formal conditions comply with the requirements set in the national legislation and decisions of RTU Senate. As a result of professional studies, the student acquires the knowledge and necessary

professional competence, which correspond to the requirements of the professional Bachelor degree and allow starting a professional activity corresponding to the specialty. The structure of the study program is shown in Table 10.1. (see Appendix 10).

As the director of the study program is the Deputy Chairman of the Transport and Logistics Expert Council of the Employers' Confederation of Latvia, the program content is regularly linked with the needs of the industry. In order to bring the content of the program as close as possible to the needs of the labor market, visiting lecturers are involved in the study program, i.e., experts, who actively participate in academic, methodological and scientific work. The academic staff of the study program, in cooperation with visiting lecturers, develop the content of the study courses and choose the most appropriate teaching methods.

Representatives of employers regularly take part in final thesis defense commissions to provide an assessment of students' knowledge of the study program. By participating in Thesis Defense Commissions, industry representatives are able to make suggestions on student research topics that are relevant to the labor market and are also taken into consideration in other academic years. The academic staff of the study program, in cooperation with visiting lecturers, develop the content of the study courses and choose the most appropriate teaching methods. Visiting lecturers participate in the development of various regulations (for example, the organization, implementation and defense of internships, study projects and Bachelor's Theses).

Employers positively evaluate students' performance in researching and defending graduation theses, which also culminates in an invitation for students to participate in employer-organized projects or job offers.

In cooperation with representatives of employers, students also develop their own study projects and final theses.

In the academic year 2017/2018, alternative study projects proposed by students of the 3rd year Bachelor's degree of study program "Business Logistics" and "International Economic Relations" were implemented. The development and implementation of the alternative study project was organized in 5 positions - Vecumnieki Municipal Environmental Conference "Transport", Faculty of Engineering Economics and Management *open Door Days*, Career Days in Daugavpils, Career Days at Cesis State Gymnasium and studying the project. The students created a program - Open simulation for business simulation games, kahoot.it interactive quiz users, a route planning exercise. This program was tailored to each event individually.

The best Bachelor Theses of the students of the program are developed in cooperation with the companies and associations of the field in which the student has worked or worked. The best Theses have been developed about topics as:

- "Optimizing the Organization of Pharmaceutical Transportation" (2019);
- "Possibilities for Improvement of Logistics Processes at Grain Pre-Treatment

Points" (2019);

- "Improvement of Spare Parts Circulation in Car Dealerships" (2019);
- "Improvement of Goods Supply Processes in Varnish, Paints and Building Chemistry Sales Companies" (2019);
- "Blockchain Technology and Cryptocurrency Application in Transport and Logistics" (2018);
- "Improvement of Procurement Processes in Food Manufacturing Companies in Latvia" (2018);
- "Inventory Management in Electronic Devices Retail Companies" (2018);
- "Opportunities for Improving Transport Organization Control in International Manufacturing Companies" (2018);
- "Opportunities for Improvement of Logistics Processes in Woodworking Companies" (2017);
- "Possibilities for Improvement of Information System in Goods Supply Processes" (2017);
- "Organization of Material Supply Flow for Canned Fish Production Companies" (2017);
- "Supply Supply in Construction Material Sales Companies" (2017);
- "Improving the flow of goods in wholesale companies" (2017);
- "Implementing Technologies to Improve Information Processing in Warehouses" (2017);
- "Opportunities for Improvement of International Container Transport" (2017);
- "Possibilities for Improvement of Timber Export Processes in Logging Companies" (2017);
- "International Road Transport Scheduling under Changing Demand" (2016).

RTU has established the Alumni Gold Fund, which includes the most outstanding and capable graduates of RTU study programs, judging by their academic achievements and social activities.

- In the academic year 2013/2014 from the professional Bachelor's study program, graduate Tatjana Aleksejeva was included in the RTU Gold Fund ;
- In the academic year 2014/2015 from the professional Bachelor's study program, graduate Roberts Abīļevs was included in the RTU Gold Fund;
- In the academic year 2015/2016 from the professional Bachelor's study program, graduate Ksenija Ļohina was included in the RTU Gold Fund;
- In the academic year 2016/2017 from the professional Bachelor's study program, graduates Elīna Pavāre, Emīls Lubējs, Matīss Andrēvičs, Poļina Ronča were included in the RTU Gold Fund;

In the academic year 2017/2018 from the professional Bachelor's study program, graduate Zane Radžēle was included in the RTU Gold Fund.

## **2.2. Assessment of the interrelation between the information included in the study**

**courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program “Business Logistics” has defined 9 achievable learning outcomes, which correspond to the achievable results of the occupational standard “Logistics manager”. The aims set in the study course descriptions are closely linked to the learning outcomes of the study program. The course content is subordinated to the achievement of learning outcomes (see Appendix 8). Every year the content of the study course is audited, which helps control and update the course content, teaching methods and learning outcomes to be achieved.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods are used: group work, case studies, seminars, discussions, field trips to industry companies in order to acquire and/or reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations.

The study program is implemented in full-time, intramural form and part-time extramural form in Latvian, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students’ knowledge, skills and competences at RTU is

determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. Since full-time students have less practical experience in the field of study, methods such as excursions to industry companies, lectures with industry experts, etc., are used. On the other hand, part-time students, who mostly have practical experience, are more likely used teaching methods as lectures, practical works, group works, homework and studies with analysis of different situations and their interpretation from both theoretical and practical aspects. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role. For example, in the study courses Fundamentals of Logistics, International Business Planning etc. students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their achievements, as well as analyzing what they have learned in the course and in the learning process as a whole. In the study course Basics of Quality Management situation analysis is used, analyzing the existing processes and developing process improvement opportunities, in the study course Personnel Management (basic course) problem-based learning is used.

As it was stated above, in addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours.

For example, in academic year 2013/2014, a one-day study trip to Valmieras stikla šķiedra JSC, Valmiermuižas alus Ltd and Papīrfabrika Ligatne Ltd was organized.

In academic year 2014/2015, one-day study visits to RIMI Latvia Ltd, Latvian Railway Ltd, Do it Ltd and other related industry companies were organized.

In academic year 2015/2016, a practical study tour was organized to Schenker Ltd., where more attention was paid to different types of transportation, as well as to warehouse operations and railway fleet.

In academic year 2016/2017, thematic study tours and workshops were organized in the following companies: BEWESHIP LATVIA / BEWE RIX Ltd, MSC Shared Service Center and Riga Universal Terminal. As part of the study course "Management of International Transportation", a guest lecture "Transport Corridors and Retail

Networks” was organized by RIMI Baltic.

In academic year 2017/2018, thematic study tours and workshops were organized in the following companies: BEWESHIP LATVIA / BEWE RIX Ltd., WELLMAN LOGISTICS Ltd., State Railway Administration, etc. Representatives of the Investment and Development Agency of Latvia (LIAA) shared their experience on the possibilities to receive export support for logistics companies.

In academic year 2018/2019, thematic study tours and workshops were organized in the following companies: Albert Berner Ltd, Aldaris, as well as at the Freeport of Riga Authority. As part of the study course “Risks and Insurance in Transport”, a guest lecture was organized in the premises of the insurance company BTA, where the representative of the company Oskars Hartmanis informed the students about the OCTA and CASCO news in freight transport.

In academic year 2019/2020, the students of the study program “Business Logistics” went on study trips to Riga Municipality Ltd. Rigas Satiksme, Rimi Logistics Center in Kekava district and the US Embassy.

Organizing of study excursions and visits ensures that the content of the study program is linked to the specifics of the field, and students acquire not only theoretical knowledge, but are also able to relate it to everyday situations in logistics companies, to analyze problems and give supported opinion.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform, is used regularly for the implementation of the program by the students of the study program as well as the academic staff and visiting lecturers. The portal provides the student with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the study course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student’s knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, and are available other audio / video and technical aids.

In academic matters, the individual approach is provided in accordance with the methodology approved by the RTU Rector's decree “On Teacher Work Planning Guidelines”, which stipulates that the lecturer should provide consultations to every 25 students in the lecture stream in the amount of 15%. In addition, separate counseling hours are provided for the management of study papers and projects, internships and graduation papers. Pre-test tutorial are organized before exams. If necessary, students can contact the instructor directly outside the tuition hours by posting current questions in the form of news or relevant study course in the forum

ORTUS or by email.

At the end of each semester, the instructors of the study course submit their course assessments to record-keepers, as well as record them in the ORTUS system for a particular study course. Students' learning outcomes are analyzed both in the course group meetings with the students and in the meetings organized by the study program administration.

The results of the students' knowledge assessment are discussed at the department meeting twice in the academic year (at the end of each semester); they are collected and evaluated by the administration of the study program and serve as a basis for further improvement of the study process. The learning outcomes are discussed and analyzed in cooperation with the instructors involved in the study program.

The description of each study course includes a section on the skills and competences that the student must acquire during the course (see the Register of Study Courses: [www.ortus.lv](http://www.ortus.lv)). Problem-solving skills are developed in case studies, study projects, which are supposed to be independently elaborated, individual activity of students, according to the latest trends of logistics development in the world and in the European Union; as well as obeying the status and characteristics of Latvia as a transit country. In the form of dialogue, students can express their opinion, share their experience and explain the problem, as well as understand the nature of the topic.

On May 29, 2017, RTU Senate approved "New Edition of the Regulation on the Assessment of Learning Outcomes", which was included in RTU Study Regulations. Interim tests (assessment tests, independent work, etc.) are organized according to the Regulation in order to ensure systematic control of the acquired knowledge. It also introduces the procedure for passing tests and examinations, the terms and conditions for academic arrears, responsibilities of the academic staff regarding the students' assessment, the student's rights and duties in the tests, and the appeal and review procedures. Interim test results and assessments are published in the ORTUS system for a given study course. Errors are analyzed and students are informed about them. Error analysis enables students to better understand uncertainty and eliminates a lack of knowledge or misunderstanding of certain issues, which increases students' motivation to achieve ever better results.

Students can participate in the improvement of the study process directly, by expressing their thoughts to: the instructor of the study course; the head of the study program; the head of the department or, with the help of the student self-government. The student self-government is represented at the Council of the Faculty of Engineering Economics and Management, RTU Senate commissions, as well as at RTU Academic Assembly.

In administrative matters, students are given the opportunity to meet with the program management during admission hours to address individual issues. In case of problematic situations, students are invited to discuss them with the management of

the study program. Current information is placed at the website, messages are sent to students in the ORTUS system, e-mail and telephone are used for individual communication. Students' meetings with the study program director are organized on a regular basis, providing students with the opportunity to discuss current issues. In this way, maximum quality of the study process is achieved by responding to student requests.

Student surveys and student meetings are of particular importance, which are organized on a regular basis twice a year and reflect the students' views on both a particular course and the organization of the study process. In addition, at the end of each semester students are provided with questionnaires, at RTU electronic environment ORTUS, where students express their opinion on the implementation of a particular study course, and the evaluation of the instructor's work. The results of the surveys are summarized and discussed by the administration of the study program and at the meetings of the Department of International Business, Transport Economics and Logistics; and at the FEEM Council, if necessary.

Consequently, the principles of student-centered education are taken into account in the implementation of the whole study process.

### *1. Students' involvement in the study process and content improvement*

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

### *2. Learning outcomes*

The assessment of the study courses of the program and the number of credit points are related to the learning outcomes, and the students are informed about these learning outcomes. The instructors associate the results of the course with the results of the study program, as well as substantiate the necessity of the given course in the profession of Logistics manager.

### *3. Mobility*

Mobility resources are used in the study program "Business Logistics" to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers, for example, in the 2019/2020 academic year autumn semester guest lectures in Maritime Logistics were given by Rima Mickiene and Elena Valioniene from the Lithuanian Maritime Academy, professors Christoph Laroque and Matthias Richter



from University of Applied Sciences Zwickau, as well as David Shakarishvili from Klaipeda University.

#### 4. *Social dimension*

For students of this program, the study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey (Appendix 2.3.1. *Graduates feedback about study program*), which indicates that almost 92% of students work through the studies. Similarly, full-time students have the opportunity to switch to part-time study, to combine study and work. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

#### 5. *Teaching and learning methods*

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed, group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other. Study tours and guest lectures are also held regularly (see page 8). Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype etc.

#### 6. *Learning environment*

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory with various databases during their research process.

#### 7. *Development of competences of the academic staff*

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods. In the framework of the international project "Developing Central Baltic University Level Professional Logistics Education", academic staff are involved in the development of new study courses (for example, Organization of International Purchasing Process, Timber Logistics, etc.); they share experience in the use of study methods, materials and programs for educating and training Heads of Logistics in cooperation with Swedish, Finnish and Estonian universities. New logistics modules are being developed within the project, which will be implemented as part of courses at international level in each of the participating countries (Sweden, Finland, Estonia, and Latvia).

#### 8. *Extra-curricular activities*

The program management supports the student self-government and encourages

students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning.

Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (sports teams, dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. Each year the students scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses is published.

In academic year 2013/2014, Student Scientific Conference Theses "Topical Issues of International Economic Relations, Transport and Logistics 2013", Part 2 (Student Scientific Conference Theses, 27-28 November 2013, RTU Press, Riga, 2013, 79 p.) and "Topical Issues in International Economic Relations, Transport and Logistics 2014", Part 1 (Theses of the Student Scientific Conference, 24-26 April 2014, RTU Press, Riga, 2014, 118 p.) were published. In total, theses of research of 70 students of the program were published.

In academic year 2014/2015, Theses of Student Scientific Conference "Topical Issues of International Economic Relations, Transport and Logistics 2014" (Part 2) (26-27 November, 2014, RTU Press, Riga, 2014, 98 p.) and Theses of Student Scientific Conference "Topical Issues in International Economic Relations, Transport and Logistics 2015" (Part 1) (25-28 April 2015, RTU Press, Riga, 2015, 129 p.) were published. In total, theses of research of 76 students were published.

2015/2016 of the Student Scientific Conference "Current Issues of International Economic Relations, Transport and Logistics 2015" Part II (Abstract of the Student Scientific Conference, November 23-26, 2015, RTU Publishing House, Riga, 2016, 76 pages) A total of 78 students of the study program participated, but the best student theses on the research of 13 students were published.

In academic year 2016/2017, the joint 57th RTU student scientific and technical conference sections of the Department of International Economic Relations, Transport Economics and Logistics and the Student Scientific Conference theses "Current Issues of International Economic Relations, Transport and Logistics 2016" (Student Scientific Conference Abstracts, 2016). April 18-19, and November 23-24, RTU Publishing House, Riga, 2017, 100 pages). A total 77 students participated in the study program, 17 of which were included in the abstract of the annual student scientific conference.

In academic year 2017/2018, 82 students participated in the student scientific conference "Topical Issues of International Economic Relations, Transport and

Logistics 2017". Since academic year 2017/2018, the theses of the student scientific conference have been available in electronic version.

In academic year 2018/2019, 59 students participated in the student scientific conference "Topical Issues of International Economic Relations, Transport and Logistics 2018".

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship (26 CP) is an essential part of the program. Internship is divided into 2 parts: Specialization Placement (Part 1) 16 CP and Designing Practical Placement (Part 2, 10 CP). Each internship has a set of internship tasks:

- To develop the student's ability to work independently in a business or professional environment;
- To make economically sound, practically applicable decisions to solve problems and / or topical issues;
- To develop and strengthen the student's communication skills, incl. ability to publicly present one's opinion and gain independent work skills.

The aim and tasks of the internship are closely related to the duties and tasks specified in the occupational standard, which ensures the consolidation of theoretical knowledge and its application in practice. The internship supervisor at the place of the internship gives feedback (completes the review), which indicates the evaluation of the students' knowledge, theoretical preparedness, communication skills, etc. As a result, there is a continuous close link with the industry, thus enabling the curriculum to be further developed and improved to meet the requirements of the labor market. For each part of the internship (Parts 1 and 2), the student draws up a report, which is presented in front of the internship assessment commission at the respective department.

Internship outside the educational institution is an integral part of the professional programs that students have to complete in accordance with Cabinet Regulation No. 512 "Regulations on the State Standard of the Second Level Professional Higher Education" as of 26 August 2014, RTU Senate Decision No.467 "On the Structure of the Second Level Professional Study Programs" as of 29 April 2002, and RTU Senate Resolution No. 626 "The New Edition of the Internship Management Procedure at Riga Technical University" as of 28 January 2019.

The internship is conducted in accordance with the Regulation, the general

requirements of which have been elaborated by RTU Senate. Taking into account the above-mentioned documents, the administration of the study program has developed the Regulation “Methodological Guidelines for the Bachelor Professional Study Program “Business Logistics”” (www.sesmi.rtu.lv).

Pursuant to the Regulation, the place of internship may be a public authority, a company or an organization. The aim of the internship is to systematize, consolidate and expand the student’s theoretical knowledge and to acquire practical skills and abilities during the internship. Tasks performed during the internship should be directly related to the study program “Business Logistics” and/or study field in order to consolidate the theoretical knowledge acquired during the studies and to develop the ability to independently perform the assigned tasks during the internship, to study, analyze and solve problems.

During the internship, the student should:

- Acquire the professional skills required by the occupational standard to promote professional competence and apply industry-specific knowledge in practice;
- Develop the ability to analytically formulate and address industry issues;
- Acquire independent and teamwork skills;
- Demonstrate an understanding of the laws and regulations governing the operation and management of the company, the business environment, occupational safety and health, quality control and environmental protection;
- Apply the principles of professional ethics and corporate social responsibility.

Internship management issues are stipulated in the Regulation. The tripartite agreements about internship is concluded with company and student-intern.

Appendix 2.4.1 *List of students internship places* lists the most frequently chosen internship places of the professional Bachelor study program “Business Logistics” during the last three study years. The table demonstrates that DHL, Ltd. Hellmann Worldwide Logistics and Ltd. Vervo are the most popular companies chosen for internship.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The students formulate and elaborate the content of the Bachelor Thesis according to the qualification to be acquired, which means that it deals with different logistics processes and their improvement, which are necessarily substantiated in the section of economic calculations.

In the Bachelor Thesis, the topicality of the chosen theme is indicated, and the researched field is analyzed.

Analyzing the performance during all academic years, it can be concluded that graduates mainly obtained grade “7” (good) (26.85%). Grade “10” (outstanding) was obtained by 3.84% of graduates, while grades “9” (excellent) and “8” (very good) – by 11.78% and 18.36% of graduates, respectively. None of the graduates received grade “4” (satisfactory) for the graduation paper.

Only representatives of the industry review bachelor theses. Graduation paper viva-voce commissions always involve leading experts in the field, experts with great work experience. The commission consists of 6-7 members, of whom 4-5 are representatives of the field (including the chair of the commission who has a Doctoral degree) and 1-2 are employees involved in the implementation of the study program. This ensures the involvement of employers in the study process, which directly implies regular employees of Latvian link between the study program and the labor market. RX-Logistics Ltd, Procter & Gamble Latvia Ltd., GEFCO Baltic Ltd., Fineks MT Ltd., Itella Logistics Ltd. and other institutions and companies participated in the defense of Bachelor Theses.

Analyzing the compliance with the state standard (see Appendix 6) it can be concluded that:

- the aims of the study program are in accordance with the requirements set by the state education standard;
- the volume of the study program and its structural division corresponds to the one defined in the state education standard;
- the content of the program meets the requirements of the state standard. The core parts of the program are study courses, internship outside the higher education institution, and state examination – the Bachelor Thesis.

Program evaluation principles are in conformity with the state education standard:

- positive achievements are summed up;
- assessment is compulsory at the end of each study course;
- overall assessment, consisting of several types of assessment tests;
- openness and clarity of requirements – the administration or academic staff of the study program explain examination requirements to all interested persons at the beginning of the study course; the examination requirements are also available at the ORTUS e-study system together with the course description;
- variety of tests – independent work, tests, seminars, public presentation of study projects, tests, exams, public presentation of internship, Bachelor Thesis, etc.

The content and scope of tests correspond to the course description and the requirements of professional qualification skills and knowledge. All prerequisites are stipulated in the description of each study course.

The content of the study program is designed according to the occupational standard (Logistics manager). The evaluation of the conformity of the study program to the occupational standard is provided in Appendix 7. Accordingly, for each level of

knowledge (perception, understanding or use) defined in the occupational standard, courses are developed with appropriate content / topics.

Therefore, it can be concluded that the Bachelor professional study program “Business Logistics” meets the requirements set by the occupational standard.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The management of the study program regularly conducts surveys of students, graduates and employers in order to ensure high quality of study content, to follow the latest trends in the use of teaching methods, as well as to respond to changes in the field.

Student feedback is collected in several ways: through electronic surveys in the ORTUS system, surveys created by the administration of the study program on individual study processes and academic staff members, as well as at student meetings, which are organized at least once a semester.

RTU Study Department regularly conducts surveys in the Ortus portal, including the survey on the evaluation of the work of the academic staff, which is organized twice during the academic year. In this way, students can provide feedback on the quality of the study courses and the professional performance of the academic staff. The results of the surveys serve as a basis for the improvement of the study process.

As a result of the surveys, it is possible to find out whether students are satisfied with the study process in general, the work of program administration and record keeping, as well as with the content of each study course and the qualification of the academic staff. The results of the surveys are discussed and analyzed at the department meetings.

Students can also make their recommendations for the improvement of the study process. Thus, for example, following the recommendations of the students, more attention is paid to field trips, as well as year by year new study courses are delivered in English. For example, in academic year 2018/2019 and 2019/2020 in English was delivered courses as *Intercultural Communication*, *Organization of International Purchasing Process*, *International Trade*, *Risks and Insurence in Transport* etc. Similarly, on the basis of student questionnaire proposals, industry experts, highly qualified professionals are involved in teaching courses (see Appendix 4.1.1. *Basic information about the academic staff involved in the implementation of the study program*).

At the end of each academic year, graduate surveys are regularly conducted. Graduate surveys are conducted both centrally in the ORTUS system following a unified RTU survey standard and locally organized by the study program

administration.

The graduates can express their opinion about the study process and its quality, as well as give evaluation of the administrative and academic staff of the study program, as well as assess employment opportunities after graduation, content of the study program, etc. From academic year 2013/2014 to academic year 2018/2019, on average, 53.10% of the total number of graduates were surveyed each year (see Appendix 2.3.1. *Graduates feedback about study program*).

Graduates' overall satisfaction with the choice of the study program is high. From academic year 2013/2014 to academic year 2018/2019, on average, 72.52% of graduates were satisfied with the choice of the study program, 12.22% had a neutral opinion, but 14.44% were not satisfied with the choice of the study program. The highest number of graduates satisfied with the chosen study program was observed in academic year 2015/2016, when 50.80% of the graduates were fully satisfied with the choice of the study program, and in academic year 2018/2019, 48.60% of the graduates gave positive feedback.

The overall satisfaction of the graduates with the acquired theoretical knowledge is high. From academic year 2013/2014 to academic year 2018/2019, on average, 61.32% of graduates were satisfied with the theoretical knowledge acquired during the academic year, 19.20% of the graduates had neutral feedback, and 18.74% were not satisfied with the quality of the acquired theoretical knowledge. The highest number of the graduates satisfied with the acquired theoretical knowledge was observed in academic year 2017/2018 when 47.70% of the graduates were fully satisfied with the acquired theoretical knowledge, and in academic year 2015/2016, 46.60% of the graduates gave positive feedback. In academic year 2018/2019, only 35.10% of respondents were satisfied with the obtained theoretical knowledge.

Graduates positively evaluate the relationship between lectures and practical classes. From academic year 2013/2014 to academic year 2018/2019, on average 53.20% of graduates were satisfied with the lecture-to-practical class ratio, 20.46% had a neutral opinion, and 24.08% were not satisfied with the lecture-to-practical class ratio. The highest number of graduates satisfied with the lecture-to-practical class ratio was observed in academic year 2014/2015, when 40.00% of the graduates were fully satisfied with the lecture-to-practical class ratio, and in academic year 2017/2018, 36.40% of the graduates gave positive feedback. In academic year 2018/2019, 27.00% of the respondents gave positive feedback, while the majority or 43.60% of graduates partially agreed to the question on the lecture-to-practical class ratio. Taking into account the graduate survey results concerning the involvement of more experts and professionals in the study process, specialists are annually invited to deliver lectures.

Graduates positively evaluate the availability of study aids. From academic year 2013/2014 to academic year 2018/2019, on average, 76.36% of graduates were satisfied with the availability of study aids, 16.60% gave neutral feedback, while

6.020% were not satisfied with the availability of study aids. The highest number of graduates satisfied with the availability of the necessary study aids was observed in academic year 2015/2016, when 51.70% of graduates were fully satisfied with the availability of study aids, and in academic year 2017/2018, 50.00% of graduates gave positive feedback. The lowest number of students satisfied with the availability of study aids was observed in academic year 2016/2017, when only 35.00% of respondents gave positive feedback. Even though students have access to extensive library resources (see Appendix 2.6.1), and the library is open 24 hours a day, not all students are interested in seeking additional literature for their study process, because their learning habits are changing.

One of the most important indicators is the employment of graduates, which proves the necessity of specialists in the labor market. The employment of students and graduates of the study program “Business Logistics” is high. From academic year 2013/2014 to academic year 2018/2019, on average, 75.96% of graduates were combining work and their studies, 11.72% of graduates sometimes combined work and their studies for short periods, while 12.32% of students did not work during their studies. The highest student employment ratio during the study period was observed in academic year 2018/2019, when 81.00% of students were employed; in academic year 2016/2017, 77.40% of students responded positively about their employment, while the lowest employment rate was observed in academic year 2014/2015, when only 74.00% of respondents gave positive feedback.

The graduates of the study program mostly held positions that correspond to their specialization. From academic year 2013/2014 to academic year 2018/2019, on average, 60.34% of graduates hold positions that corresponded to their specialization, while 26.90% of the graduates hold positions that were not related to their specialization. The highest number of graduates employed in the specialty occupation was observed in academic year 2018/2019, when 45.90% of the graduates were employed in the specialty occupation, and in academic year 2016/2017, 45.30% of the graduates gave positive feedback. The lowest number of graduates employed in the specialty occupation was observed in academic year 2014/2015 and in academic year 2017/2018, when only 34.00% of respondents gave positive feedback.

The graduates of the study program are mostly employed during their studies. From academic year 2013/2014 to academic year 2018/2019, on average, 54.00% of students worked full-time and only 15.58% of them worked part-time. The highest number of students who worked full-time was observed in academic year 2017/2018, when 63.60% of students worked full-time, and in academic year 2015/2016, 56.90% of respondents worked full-time. The lowest number of students who worked full-time was observed in academic year 2016/2017, when only 41.50% of respondents gave positive feedback.

In the survey, graduates also make recommendations for the improvement of the study program:



- More state budget funded seats could be provided;
- The number of practical classes could be increased and the number of lectures could be decreased;
- More visiting lecturers specializing in the field could be attracted to the implementation of the study program.

The evaluation of the program, the study process, the acquired knowledge and practical skills demonstrate the necessity to constantly improve the curriculum according to the new developments of the field. All the results obtained in the surveys are used for the improvement of the study process.

For example, in year 2014 graduates of study program suggested to bring lectures more closer to practice, as well as to provide excursions to logistics companies and warehouses at least 2-3 times per year. This was taken into account by providing students with a number of compulsory study excursions each year, as, for example, in academic year 2016/2017 was organized study excursions to “BEWESHIP LATVIA” /Ltd. “BEWE RIX”, “MSC Shared Service Center” and “Riga Universal Terminal”, in academic year 2017/2018 to “BEWESHIP LATVIA” /Ltd. “BEWE RIX”, SIA WELLMAN LOGISTICS, State Railway Administration, but in academic year 2018/2019 to Albert Berner Ltd., Aldaris AS, as well as to Riga Freeport.

In 2015, the graduates of the study program proposed to organize regular meetings with representatives of the field, as well as to ensure that the study courses are taught not only by theorists, but also by the field professionals. This was taken into account when improving the list of study program and academic staff in 2017, 2018 and 2019, therefore currently about 40% of the academic staff are the field experts (see Appendix 4.1.2. *Academic staff involved in the implementation of the study program* and Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program*), as well as thematic guest lectures are regularly organized, for example, in the academic year 2016/2017 within the framework of study course “Management of International Transportation” company “RIMI Baltic” organized a guest lecture on the topic “Transport corridors and retail networks”, but in the academic year 2018/2019 within the framework of study course “Risks and Insurance in Transport”, a guest lecture was organized in the premises of the insurance company BTA, where the company's representative Oskars Hartmanis informed the students about the current issues of OCTA and KASKO in cargo transportation.

In order to ensure continuous monitoring of the program from the employers’ point of view, the employers’ opinions on the curriculum and students’ knowledge in the field of logistics are collected and analyzed.

From academic year 2016/2017 to academic year 2018/2019, the survey was undertaken by 33 employers who employed the students and/or graduates of the study program “Business Logistics” (see Appendix 2.6.2).

On average, 90% of employers characterized the students and graduates as responsible, accurate and disciplined. During the reporting period, on average, employers’ satisfaction with students’ and graduates’ ability to set priorities and meet work deadlines, as well as to plan their own working day, increased on average by 20%.

On average, 96% of employers considered that the theoretical knowledge and

practical skills of the students of the program corresponded to the requirements of the labor market. 85% of employers particularly valued students' ability to learn quickly and to work independently.

91% of the surveyed employers evaluated the quality of students' and graduates' work as high; moreover, was highlighted that the work was done promptly, accurately, independently, as well as meeting deadlines and workplace standards.

On average, 97% of employers positively evaluated the business skills of program students and graduates, especially the ability to work individually and in a team, ability to solve problems and collaborate independently, good communication and foreign language skills, and knowledge of business etiquette and flexibility.

On average, 89% of employers considered that students and graduates of the program successfully used not only theoretical skills, such as knowledge of Incoterm, transport organization and the structure of goods movements, but also practical skills as the ability to learn quickly, work with large amounts of data, work individually and in a team, and deal with non-standard situations.

According to the survey results, on average, 98% of employers introduced students or graduates to internal company regulations, databases, industry regulations, and standard office software required to complete their duties when starting internship or job. 85% of employers indicated that when students start work or internship, they are introduced to work-related documents, customer data information systems, transport tracking and routing systems, etc.

When receiving employers' feedback this study programme students - trainees, in 100% of questionnaires, entrepreneurs have highlighted that students have very good theoretical and practical skills and no recommendations for improving the content of the programme on the part of employers.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

As the language of study program implementation is Latvian, there is no incoming mobility opportunities use, but students of the study program take an opportunity provided by international mobility programs. For example, from academic year 2013/2014 to academic year 2018/2019, 27 students undertook Erasmus+ study mobility (see Appendix 5): 9 students went to the Netherlands (Inholland University of Applied Sciences, Windesheim University of Applied Sciences and Rotterdam University of Applied Sciences), 4 students - to Portugal (University of Aveiro), 4 students - to Germany (Kuehne Logistics University), 1 student to Denmark University of Southern), 2 students to France (University of le Harve), 1 student to Austria

(University of Applied Science Upper, University of Leoben) 1 student to Czech Republic (Tomas Bata University in Zlin) and 4 students - to Cyprus (Frederick University).

Highly acclaimed study programs at partner institutions that offer logistics courses are selected. The feedback from the partner universities on the study program "Business Logistics" is very positive, confirming that the study program of RTU corresponds to the international quality level.

In the reporting period, 9 students went on the traineeship mobility: in academic year 2013/2014 to *WABCO Logistik GmbH* (Germany), in academic year 2014/2015 to *RTS Roadrunner Transport Service GmbH & Co.* (Germany), in academic year 2015/2016 to *DACHSR SE Logistikzentrum Hof* (Germany) and *Turners (Soham) Ltd* (United Kingdom), in academic year 2016/2017 to *Robert Bosch GmbH* (Germany) and *Mainline Haulage Ltd* (United Kingdom), in academic year 2018/2019 to *The Kraft Heinz Company* (Netherlands), *E&S Escuela Superior, S.L.* (Spain) and *OnceAgain.a.s.* (the Czech Republic).

Data on student mobility during each academic year were analyzed (see Appendix 2.7.1. *Cooperation and internationalization*).

In academic year 2013/2014, overall 7 Erasmus+ students spent a semester at partner universities: Frederick University (Cyprus), University of Southern (Denmark), Inholland University of Applied Sciences (the Netherlands), and University de Aveiro (Portugal). One student participated in the traineeship mobility program at *WABCO Logistik GmbH* (Germany).

In academic year 2014/2015, overall five students spent a semester at partner institutions as participants of the Erasmus+ program: Windesheim University of Applied Sciences (the Netherlands), University of Applied Science Upper (Austria), and the University of Le Havre (France). One student participated in the traineeship mobility program at *RTS Roadrunner Transport Service GmbH & Co.* (Germany).

In academic year 2015/2016, within the Erasmus+ mobility program, overall five students spent a semester at partner universities: University of Aveiro (Portugal), Tomas Bata University in Zlin (the Czech Republic), University of Leoben (Austria), and Kuehne Logistics University (Germany). In turn, 2 students of the study program participated in the traineeship mobility program at *DACHSR SE Logistikzentrum Hof* (Germany) and *Turners (Soham) Ltd* (United Kingdom).

In academic year 2016/2017, within the Erasmus+ mobility program, overall five students spent a semester at partner institutions: Kuehne Logistics University (Germany), Rotterdam University of Applied Sciences (the Netherlands) and Frederick University (Cyprus).

In academic year 2017/2018, overall four students of the program spent a semester at partner higher education institutions: Windesheim University of Applied Sciences (the Netherlands) and Rotterdam University of Applied Sciences (the Netherlands).

In academic year 2018/2019 in total 1 student spent a semester at partner higher education institution: University of Aveiro (Portugal). In turn, 3 students in the study program have been on mobility placements at The Kraft Heinz Company (The Netherlands), E&S Escuela Superior, S.L. (Spain) and OnceAgain.a.s. (Czech Republic).

From the partners hosting the Business Logistics program students, are received very positive feedback on the students' level of theoretical and practical knowledge.

Recognition of study courses acquired during the mobility takes place in accordance with RTU Vice-Rector for Studies Nr. 01000-1.1 / 240 of the Order "On Amending the Erasmus + Student Mobility Arrangement" and the Order of 4 April 2016 No. 02000-1.1 / 29 Order "On Recognition of Study Courses Acquired in Other Higher Education Institutions and Study Programs". Recognition of the ERASMUS + period is made by the study program director upon the student's return from ERASMUS + studies, based on the student's transcript of records and a pre-signed application for course recognition.

For a successful recognition of study courses, the student carefully selects the most appropriate partner institution for the study program and field before embarking on ERASMUS + studies. The student's course of study must coincide wholly or in part with the courses offered by the selected partner HEI, which is also coordinated in the application form with the ERASMUS + coordinator of the structural unit and approved by the study program director.

During the recognition process, the grades obtained during ERASMUS + studies are not converted into a 10-point grading scale, but successfully completed partner institution courses are written "recognized", thus recognizing the partner institution's credit points. If the course recognition application foresees changes in the study program and the student has been successful during ERASMUS + studies, an order of the Vice Rector for Studies regarding individual changes in the study program is prepared. Once an order has been issued for the individual amendment of the study program, the courses of the partner higher education institution shall be entered in the RTU Register of Study Courses and the student's individual plan shall be amended to include the courses acquired abroad. Modifications to the study program shall only be made at the expense of the Part B courses by replacing the courses with those of the partner higher education institution.

In the overall assessment it can be considered that the degree of mobility of the students of the program is high and the level of knowledge of the students corresponds to the level of knowledge, skills and competences of the study courses implemented by other internationally recognized higher education institutions.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The available resources and provision comply with the study program implementation requirements and facilitate achievement of study results.

The study program “Business Logistics” is implemented on a fee basis and there also are 23 state budget funded seats. Data on funding are given in the table below.

Table 3.1.

**Funding of the Study Program**

<b>Academic Year</b>	<b>Subsidy (EUR)</b>	<b>Tuition fee for the program (EUR)</b>	<b>Total funding for the program</b>	<b>Cost per student (EUR)</b>
2013/2014	21 821	426 222	448 042	1 866
2014/2015	27 911	401 335	429 246	1 866
2015/2016	26 949	367 744	394 693	1 866
2016/2017	27 088	320 577	347 665	1866
2017/2018	28 159	266 954	295 113	1951
2018/2019	29 339	262 568	291 907	2 042

The program is mainly implemented through students tuition fee funding. State budget funding accounted for 4.80% – in academic year 2013/2014.

In academic year 2014/2015, the study program was mainly implemented through tuition fee funding, as the state budget funding was small – only 6.50% of the total funding of the study program.

Since 2016, the total funding for the program has been decreasing, which should be considered as a threat to the quality of the program.

An increase in the number of state budget funded seats would be welcomed, which would also encourage growth in the number of students at the program.

The following facilities are used in the implementation of the program:

- Auditoriums (both for lectures and practical classes);
- Computer rooms;
- Resource room;
- RTU Scientific Library.

All other infrastructure available in RTU and IEVF (classrooms, study rooms, sports complexes, canteens, wardrobes, etc.) are used for the implementation of the

program. Students have access to databases subscribed by RTU Library:

- **ProQuest Ebook Central** contains approximately 51,700 full-text ebooks published by the world's leading scientific publishing houses – Elsevier, Wiley, Springer, Oxford Press, Emerald etc. in various fields of science, as well as in economics, finance, and business.
- **ScienceDirect** – a database of scientific, technical and medical articles by Elsevier. Over 2,500 full-text journals (Freedom Collection) have been made available since 2002 and 354 full-text books in various fields of science, as well as in economics, finance, business, management and accounting.
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- **Wiley Online Library** has more than 1,360 full-text journals (Full Collection) since 1997 in various fields of science, as well as in economics, finance, business, management, and accounting.
- **SpringerLink** has approximately 13,100 books published by Springer in the period of 2014–2018 in various fields of science, as well as in business and economics.
- **The International Monetary Fund (IMF) eLibrary** offers access to important global economic information – IMF resources, periodicals, books, statistical databases and studies on macroeconomics, financial crises, globalization, trade, international relations, politics, etc.
- **LETA fields:** Construction and Real Estate, Macroeconomics, Industry, Trade and Services, Transport and Transportation, Tourism, Hotel Business.
- **Latvian Standards Database.**

Logistics search results for the last 5 years in the Primo and Exlibris databases are shown in Appendix 2.6.1., *Basic information about library provision for students*.

RTU Scientific Library has a wide range of books, etc. corresponding to the study program “Business Logistics”. It includes a variety of information resources:

1. Logistics and Retail Management: Emerging Issues and New Challenges in the Retail Supply Chain / Edited by John Fernie and Leigh Sparks. 5th edition. London: KoganPage, 2019 xxvii, 314 p.: illustrations; 24 cm ISBN 9780749481605 (paperback).
2. Tate, Wendy Supply Chain Finance: Risk Management, Resilience and Supplier Management / Wendy L. Tate, Lydia Bals and Lisa M. Ellram. New York, NY: Kogan Page, 2019 xii, 268 p.: illustrations; 24 cm ISBN 9780749482404 (paperback)
3. Zijm, Henk Operations, Logistics and Supply Chain Management / Henk Zijm, Matthias Klumpp, Alberto Regattieri, Sunderesh Heragu, editors. Cham: Springer, 2019 xviii, 734 p.: illustrations; 24 cm. Lecture notes in logistics. ISBN 9783319924465 (bound).
4. Blokdyk, Gerardus Transport Logistic: The Ultimate Step-by-Step Guide: Practical Tools for Self-assessment / Gerardus Blokdyk. [United States]: The Art of Service, [2018] 124 p.: illustrations; 23 cm ISBN 9780655158356 (paperback).
5. Fawzy, Ahmed Business Analysis and Process Modeling: A Beginner's Guide to Business Strategy and Process Improvement / Ahmed Fawzy. [United Kingdom]: Idea For IT, 2018, 110 p.: illustrations; 23 cm ISBN 9781949814002 (paperback).
6. Hugos, Michael H., Essentials of Supply Chain Management / Michael H. Hugos. 4th edition. Hoboken, New Jersey: Wiley, 2018 xii, 355 p.: illustrations; 23 cm. Essentials Series. ISBN 9781119461104 (paperback).
7. Riga Aeronautical Institute. Transport. Education. Logistics and Engineering - 2018: Proceedings = Транспорт. Образование. Логистика и инженерия - 2018: сборник статей / Scientific Reviewers: Dr.habil.sc.ing. Vladimir Shestakov, Dr.sc.ing. Pāvels Karoļs, Dr.sc.ing. Ilmārs Blumbergs; Riga Aeronautical Institute. Riga: Riga Aeronautical Institute, 2018, 182 p.: diagrams, illustrations, tables; 30 cm, the resource is also available in electronic form. ISBN 9789984999685 (paperback).
8. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2017: Joint Proceedings of the 58th RTU Student Scientific and Technical Conference, Sections of the Department of International Business, Transport Economics and Logistics (DIBTEL), and DIBTEL Student Scientific Conference: 19-22 June 2017 and 22-25 November 2017 / Scientific Editor Dr.oec. Velga Ozoliņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2018. 1 online resource (95 p.) ISBN 9789934220456
9. Hintsa, Juha Supply Chain Security (SCS) Compendium: A Decade of Academic SCS Research: HEC University of Lausanne, Switzerland & Riga Technical University, Latvia, 15 January 2017 / Juha Hintsa. Riga: RTU Press, © 2017, 452 p.: diagrams, illustrations, tables; 25 cm. ISBN 9789934109232 (paperback).
10. Hudenko, Justīna, Publiskās lietošanas dzelzceļa infrastruktūras optimālas

attīstības modeļu izstrāde un pielietošana: Summary of Doctoral Thesis, Field: Management, Sub-Field: Business Management / Justīna Hudenko; Scientific supervisor Dr.habil.oec. R. Počs; official reviewers: Dr.oec. Konstantins Didenko, Dr.oec. Jurijs Spiridonovs, Dr.oec. Jurijs Ščerbaņins; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2017, 45 p.: diagrams, table; 24 cm ISBN 9789934109515 (paperback).

11. Hudenko, Justīna, Elaboration and Design of Public-Use Railway Infrastructure Optimal Development Models: Summary of Doctoral Thesis, Field: Management, Sub-field: Business Management / Justīna Hudenko; scientific supervisor Dr.habil.oec. R. Počs; official reviewers: Dr.oec. Konstantins Didenko, Dr.oec. Jurijs Spiridonovs, Dr.oec. Jurijs Ščerbaņins; Riga Technical University. Faculty of Engineering Economics and Management. International Business and Customs Institute. Department of International Business, Transport Economic and Logistics. Riga: RTU Press, 2017. 44 p.: diagrams, tables; 24 cm ISBN 9789934109522 (paperback).
12. Hudenko, Justīna, Publiskās lietošanas dzelzceļa infrastruktūras optimālas attīstības modeļu izstrāde un pielietošana [Elaboration and Design of Public-Use Railway Infrastructure Optimal Development Models]: Doctoral Thesis, Field: Management, Sub-field: Business Management / Justīna Hudenko; Scientific supervisor Dr.habil.oec. R. Počs; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2017, 159, [19] p.: diagrams, tables; 24 cm.
13. International Conference on Reliability and Statistics in Transportation and Communication. The 17th International Multi-Conference on Reliability and Statistics in Transportation and Communication (RelStat'17): 18-21 October 2017, Riga, Latvia: Abstracts / Edited by Igor V. Kabashkin, Irina V. Yatskiv; Transport and Telecommunication Institute. Riga: Transport and Telecommunication Institute, 2017 viii, 141 p.: scheme; 30 cm, the resource is also available online. ISBN 9789984818863 (paperback).
14. Rebezova, Marina. Aviācijas papildpakalpojumu loģistika un optimizācija gaisa transportā [Logistics and Optimization of Ancillary Aviation Services on Air Transport]: Summary of Doctoral Thesis for Scientific Degree of Doctor of Engineering Sciences, Field: Transport and Traffic, Sub-field: Telematics and Logistics / Marina Rebezova; Scientific Supervisor Dr.habil.sc.ing. Aleksandrs Andronovs; official reviewers: Dr.sc.ing. Irina Jackiva, habil.sc.ing. Vladimirs Šestakovs; Dr.habil.sc.ing. Ramūnas Palšaitis; Transport and Telecommunication Institute. Riga: Transport and Telecommunication Institute, 2017. 134 p.: tables; 21 cm ISBN 9789984818719 (paperback).
15. Riga Technical University. Topical Issues of International Business, Transport



and Logistics 2016: Joint Proceedings of the 57th RTU Student Scientific and Technical Conference, Sections of the Department of International Business, Transport Economics and Logistics (DIBTEL), and DIBTEL Student Scientific Conference: 18-19 April 2016, and 23-24 November 2016 / [Editorial Board: Velga Ozoliņa, Remigijs Počs; editor-in-chief Nadežda Škindere; literary editor Ieva Zarāne; cover designer Ekaterina Lukina]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2017. 100 p.: scheme; 24 cm. ISBN 9789934109133 (paperback).

16. Balodis, Māris, Optimization Models for Securing Energy Supply towards Sustainable Economic Development of Latvia: Summary of Doctoral Thesis, Field: Management Science, Sub-field: Business Administration / Māris Balodis; scientific supervisor R. Počs; scientific consultant V. Skribans; [official reviewers: Dzintra Atstaja, Ineta Geipele, Bronius Neverauskas]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Business and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2016. 53 p.: diagrams, illustrations, tables; 24 cm. ISBN 9789934108709 (paperback).
17. Balodis, Māris, Energoapgādes nodrošinājuma optimizācijas modeļi Latvijas ilgtspējīgai ekonomiskai attīstībai: Summary of Doctoral Thesis, Field: Management Science, Sub-field: Business Administration / Māris Balodis; scientific supervisor R. Počs; scientific consultant V. Skribans; [official reviewers: Dzintra Atstaja, Ineta Geipele, Bronius Neverauskas]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Business and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2016. 52 p.: diagrams, illustrations, tables; 24 cm. ISBN 9789934108693 (paperback).
18. Balodis, Māris, Energoapgādes nodrošinājuma optimizācijas modeļi Latvijas ilgtspējīgai ekonomiskai attīstībai [Optimization Models for Securing Energy Supply towards Sustainable Economic Development of Latvia]: Doctoral Thesis, Field: Management Science, Sub-field: Business Administration / Māris Balodis; scientific supervisor R. Počs; scientific consultant V. Skribans; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2016. 177 p.: diagrams, illustrations, tables; 24 cm.
19. Chandra, Charu. Supply Chain Configuration: Concepts, Solutions, and Applications / Charu Chandra, Janis Grabis. Second edition. New York, NY: Springer Science + Business Media, © 2016, 297 p.: diagrams, illustrations, tables; 24 cm. ISBN 9781493935550 (bound).
20. Christopher, Martin. Logistics & Supply Chain Management / Martin Christopher. 5th edition. Harlow, England [etc.]: Financial Times Prentice Hall, 2016 xiv, 310 p.: illustrations. ISBN 9781292083797

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22. Orlovskā, Ausma. Ekonomiskā statistika: [teorija, piemēri, uzdevumi] [Economic Statistics: [Theory, Examples, Exercises]] / Ausma Orlovskā, Inguna Jurgelane; [reviewer Remigijs Počs; editor-in-chief Natālija Čina; literary editor Inga Skuja; cover design: Jekaterina Lukina]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Third supplementary edition. Riga: RTU Press, 2016, 158 p.: diagrams, tables; 24 cm. ISBN 9789934108044 (paperback).
23. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2015: Proceedings of RTU Student Scientific and Technical Conference: 23–26 June 2015 November / [editorial board: Velga Ozoliņa, Remigijs Počs; literary editor Irēna Skārda; cover designer Ekaterina Lukina]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2016, 76 p.; 24 cm. ISBN 9789934107719 (paperback).
24. Zeps, Artūrs, Strategic Solutions for Sustainable Development and International Excellence in Organizations: Doctoral Thesis, Field: Management, Sub-field: Business Management / Artūrs Zeps; scientific supervisor: Remigijs Počs; scientific consultant: Leonīds Ribickis; [designer Jekaterina Lukina; literary editor Tatjana Smirnova]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2016, 175 p.: diagrams, illustrations, tables; 25 cm. ISBN 9789934108488 (bound).
25. Zeps, Artūrs, Strategic Solutions for Sustainable Development and International Excellence of Organizations: Summary of Doctoral Thesis, Field: Management, Sub-field: Business Management / Artūrs Zeps; scientific supervisor: Remigijs Počs; scientific consultant: Leonīds Ribickis; [official reviewers: Elīna Gaile-Sarkane, Andrejs Čirjevskis, Asta Savanevičiene]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2016, 46 p.: diagrams, illustrations, tables; 24 cm. ISBN 9789934108471 (paperback).
26. Zeps, Artūrs, Stratēģiskie risinājumi organizācijas ilgtspējīgai attīstībai un starptautiskai izcilībai: Summary of Doctoral Thesis, Field: Management, Sub-field: Business Management / Artūrs Zeps; scientific supervisor: Remigijs Počs; scientific consultant: Leonīds Ribickis; [official reviewers: Elīna Gaile-Sarkane, Andrejs Čirjevskis, Asta Savanevičiene]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport

- Economics and Logistics. Riga: RTU Press, 2016, 47 p.: diagrams, illustrations, tables; 24 cm. ISBN 9789934108464 (paperback).
27. Cecere, Lora M. Supply Chain Metrics that Matter / Lora M. Cecere. Hoboken, New Jersey: Wiley, [2015] xviii, 381 p.: illustrations; 24 cm. Wiley corporate F&A series. ISBN 9781118858110 (hardback)
  28. Global Supply Chain Security: Emerging Topics in Research, Practice and Policy / Andrew R. Thomas, Sebastian Vaduva, editors. New York: Springer, © 2015 ix, 202 p.: illustrations. ISBN 9781493921775
  29. Grant, David B. Sustainable Logistics and Supply Chain Management / David B. Grant, Alexander Trautrimis, Chee Yew Wong. Revised edition. London; Philadelphia: Kogan Page, © 2015 xii, 241 p.: il. ISBN 9780749473860
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  33. Lundesjö, Greger, Supply Chain Management and Logistics in Construction: Delivering Tomorrow's Built Environment / Edited by Greger Lundesjö. London; Philadelphia: Kogan Page, © 2015 xiv, 272 p.: illustrations; 24 cm. ISBN 9780749472429 (paperback)
  34. Muravjovs, Aivars, Krājuma vadības sistēmu analīze izmantojot dažādas imitācijas modelēšanas paradigmas [Inventory control system analysis using Different Simulation Modelling Paradigms]: Summary of Doctoral Thesis for Scientific Degree of Doctor of Engineering Sciences (Dr. sc. ing.), field "Transport and Communications", sub-field "Telematics and Logistics" / Aivars Muravjovs; scientific supervisor Jevgeņijs Kopitovs; consultants: Jurijs Tolujevs, Irina Jackiva; [Official Reviewers: Jurijs Merkurjevs, Ilia B. Frenkel; Georgijs Burakovs]; Transport and Telecommunication Institute. Riga: Transport and Telecommunication Institute, 2015, 71 p.: diagrams, illustrations, schemes, tables; 21 cm. ISBN 9789984818764 (paperback).

35. Murphy, Paul R. *Contemporary Logistics* / Paul R. Murphy, A. Michael Knemeyer. 11th edition, global edition. Harlow: Pearson, © 2015, 317 p.: illustrations; 26 cm. ISBN 9781292004846 (paperback).
36. Richards, Gwynne, *Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse* / Gwynne Richards. 2nd edition. London: Kogan Page Limited, 2015 xvi, 427 p.: illustrations; 23 cm. ISBN 9780749469344
37. Riga Technical University. *Topical Issues of International Business, Transport and Logistics 2015: Proceedings of the 56th RTU Student Scientific and Technical Conference, Section of the Department of International Business, Transport Economics and Logistics: 25-28 April 2015* / Editorial Board: Velga Ozoliņa, Remigijs Počs; cover designer Ekaterina Lukina; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2015, 129 p.; 25 cm. ISBN 9789934107160 (paperback).
38. Riga Technical University. *Topical Issues of International Business, Transport and Logistics 2014: Proceedings of the Student Scientific Conference: 26-27 November 2014* / [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs; literary editor Silvija Minkevica]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2015, 98 p.: illustrations; 21 cm. ISBN 9789934106460 (paperback).
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42. *Logistics and Retail Management: Emerging Issues and New Challenges in the Retail Supply Chain* / Edited by John Fernie & Leigh Sparks. 4th edition. London: Kogan Page, xviii, 2014, 262 p.: illustrations, 24 cm. ISBN 9780749468231 (paperback).
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- 2014, 252 p.: illustrations; 24 cm. ISBN 9780749472405 (paperback).
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  53. Stukaļina, Jūlija, Professional English for Students of Logistics / Yulia Stukalina; [reviewers: Larisa Kuzmenko, Antra Roskoša; glossary translated into Estonian Tõnis Hintsov]. Riga: Transport and Telecommunication Institute, 2014. 187 p.: tables; 21 cm. ISBN 9789984818672
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  61. Girvica, Olga, Optimizācijas modeļu un metožu izstrādāšana loģistikas kompānijas veiksmīgai darbībai: Summary of Promotion Thesis / Olga Girvica; scientific supervisor A. Andronov; Riga Technical University. Faculty of Transport and Mechanical Engineering. Institute of Aeronautics. Riga: RTU Press, 2013, 42 p.: illustrations, tables; 22 cm. ISBN 9789934104398
  62. Jurševiča, Jeļena, Lēmumatbalsta metodoloģija pamatojoties uz pilsētas transporta sistēmas mikroskopisko modeļu repozitorijiem [Methodology of Decision-Making Support Based on Urban Transportation System Microscopic Models Repositories]: Summary of Doctoral Thesis for Scientific Degree of Doctor of Engineering Sciences (Dr.sc.ing.); field "Transport and Communications", sub-field "Telematics and Logistics" / Jeļena Jurševiča; scientific supervisor Irina Jackiva; Transport and Telecommunication Institute. Riga: Transport and Telecommunication Institute, 2013, 124 p.: illustrations, diagrams, tables; 21 cm. ISBN 9789984818603
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- Administration" / Raimonds Lieksnis; scientific advisor: Remigijs Počs; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Custom. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2013, 66 p.: illustrations, tables; 21 cm. ISBN 9789934104176
66. Lieksnis, Raimonds, Finanšu aktīvu novērtēšanas problēmas Baltijas valstu fondu tirgos: Summary of Doctoral Thesis; field: "Management Science", sub-field: "Business Administration" / Raimonds Lieksnis; scientific advisor: Remigijs Počs; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2013, 69, [1] p.: illustrations, tables; 21 cm. ISBN 9789934104169
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  68. Ravindran, A., Supply Chain Engineering: Models and Applications / A. Ravi Ravindran, Donald P. Warsing, Jr. Boca Raton, Florida: CRC Press, 2013 xxiv, 521 p.: illustrations; 24 cm. Operations Research Series. ISBN 9781138077720 (paperback).
  69. Riga Technical University. Topical Issues of International Economic Relations, Transport and Logistics 2013: Proceedings of the Student Scientific Conference: 8-11 May 2013. [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2013, 129 p.; 21 cm. ISBN 9789934104381
  70. Sales, Michael, The Air Logistics Handbook: Air Freight and the Global Supply Chain / Michael Sales. New York: Routledge, 2013 xxiii, 216 p.: illustrations. ISBN 9780415643641 (paperback).
  71. Savrasovs, Mikhail, Jaunas pieejas izstrāde transporta plūsmu modelēšanai un analīzei mezoskopiskā līmenī [Development of New Approach for Simulation and Analysis of Traffic Flows on Mesoscopic Level]: Summary of Doctoral Thesis for Scientific Degree of Doctor of Engineering Sciences (Dr. sc.ing.); field "Transport and Communications", sub-field "Telematics and Logistics" / Mikhail Savrasovs; scientific supervisor Jurijs Tolujevs; Transport and Telecommunication Institute. Riga: Transport and Telecommunication Institute, 2013, 123 p.: illustrations, tables; 21 cm. ISBN 9789984818566
  72. Supply Chain Logistics Management / Donald J. Bowersox ... [et al.]. 4th ed., international ed. New York: McGraw-Hill, c2013, xii, 484 p.: illustrations; 26 cm. ISBN 9780071326216
  73. Supply Chain Safety Management: Security and Robustness in Logistics / Michael Essig ... [et al.] (eds.). Heidelberg; New York: Springer, c2013, ix, 372 [1] p.: illustrations; 24 cm. Lecture notes in logistics. ISBN 9783642320200



74. Vilkelis, Aurimas, Modelling of the Automotive Distribution Network by Merging Supply Channels of Manufacturers: Summary of Doctoral Thesis; field "Technological Sciences", sub-field "Transport Engineering (03T)" [Automobilių skirstymo tinklo modeliavimas jungiant gamintojų] / Aurimas Vilkelis; Vilnius Gediminas Technical University. Vilnius: Technika, 2013, 24 p.: illustrations.
75. Гаджинский, А. М. Логистика [учебник для вузов по направлению подготовки "Экономика", "Менеджмент", "Товароведение", "Торговое дело" "Сервис" (квалификация "бакалавр")] / Gajinski, A.M. Logistics [Textbook for Students in the field of Economics, Management, Trade, Service (Bachelor degree), 21st ed. Moscow: Дашков и К<sup>о</sup>, 2013, 418 p.: illustrations, Series "Textbooks for Bachelor-Level Students".

According to the professional standard, future Logistics managers should be familiar with the tax and customs field, students of the study program have the opportunity to improve their knowledge in the Customs Control Laboratory established by the Customs and Taxes Department of Faculty of Engineering Economics and Management, International Business and Customs Institute, with the support of the Customs Board of the State Revenue Service. The laboratory is equipped with a variety of measuring devices and technical tools used by customs officers in their daily work to inspect vehicles and persons, such as density and radiation flow meters, metal detectors, endoscopes, narcotics, etc., to check that vehicles are not smuggled goods. Special cages for hollow boards, car doors, seats, fuel tanks and tires have also been developed to train students' ability to find smuggled goods. Thus, the laboratory simulates frequently used hiding places for the transportation of unauthorized goods. The laboratory is also equipped with techniques for showing various customs control training films and videos.

Therefore, the resources and provision of the study program are adequate to the needs of the study program; however, it is necessary to increase the number of state budget funded seats in the program.

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Academic staff as well as highly qualified specialists in the field participate in the implementation of the program. The results of the student survey indicate that they highly appreciate the involvement of industry experts in the learning process. In recent years, representatives of logistics associations, employees of logistics companies and other professionals have been attracting more and more students to acquire practical knowledge of logistics processes in addition to their academic vision. Information about the teaching staff is shown in Appendix 4.1.1., *Basic information about academic staff involved in the implementation of study program* and in Appendix RICLO list of academic staff.

The table below shows (see Table 4.1.) information on changes in the teaching staff involved in the implementation of the study program. It can be seen that the number of professors, associate professors and assistant professors has been increased compared to academic year 2013/2014 specialists in the field are also involved in the study process. This ensures that various faculty members are involved in the implementation of the program and that students obtain comprehensive information about the situation in the field, both theoretically and practically.

Table 4.1.

Changes in academic staff 2013-2019

Year	Profesor	Associate Professor	Assistant Professor	Lecturer	Field expert
2013/2014	8	7	14	4	19
2014/2015	9	6	16	4	15
2015/2016	7	9	17	4	13
2016/2017	7	9	15	8	14
2017/2018	9	7	14	8	24
2018/2019	9	10	10	6	22
2019/2020	9	11	11	4	20

It can be seen from the table that according to the suggestions in the student questionnaires and the fact that this is a professional bachelor's program, every year more and more highly qualified specialists and experts are involved, thus the content of the program is as close as possible to the specifics and topicalities of the field.

#### 4.1.2. *Lecturers involved in the study program implementation.*

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

To ensure the quality of the study content, the academic staff members involved in the implementation of the program, regularly improve professional and academic knowledge by participating in methodological seminars, conferences (national and international), projects and by conducting scientific and research work (see Appendix 4.2.1. *List of academic staff publications in reporting period*). Information about the academic staff members involved in the implementation of the study program and their correspondence to the delivered courses is presented in Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program.*

The lecturers involved in the program actively use international cooperation and mobility programs. For example, in the academic year 2016/2017, teaching and administrative staff of the study program have used international mobility programs, including the framework of the Erasmus + program. Deputy Head of SESTEL, Associate Professor Ingūna Jurgelāne-Kaldava and Deputy Head of Study Program traveled to Frederick University (Cyprus) for strengthening administrative cooperation in order to further develop student and academic staff mobility, as well as developing distance learning projects. International Project Manager at SESTEL Chair, visited Kühne Logistics University (Germany) to exchange experiences and promote inter-university mobility. Associate professor Valērijs Skribans gave thematic lectures and workshops on "Supply Chain Planning with System Dynamic Method" and "Supply Chain Optimization at Polytechnic University of Tirana (Albania).

In turn, 2017/2018. Director of the study program, Associate Professor Inguna Jurgelāne-Kaldava, in the framework of the Erasmus + program, visited Kühne Logistics University (Germany), Heilbronn University (Germany) and IDRAC Business School (France) for further cooperation of students and academic staff as well as international mobility and developing distance learning projects. International Project Manager at SESTEL Chair, visited Heilbronn University (Germany) for exchange of experience and promotion of inter-university mobility. Associate Professor Velga Ozolina attended University of Fernando Pesone (Portugal) and have gained general knowledge at Tampere University of Applied Science (Finland).

In the academic year, the director of the study program, Associate Professor Ingūna

Jurgelāne-Kaldava went to the Hochschule für Technik und Wirtschaft Dresden (Germany) and Lahti University of Applied Sciences (Finland) under the Erasmus + program to promote further scientific cooperation and the development of international projects.

From 2019, the lecturers involved in the program are exchanged with the lecturers of the Lithuanian Maritime Academy. Each semester one of the lecturers of the Lithuanian Maritime Academy gives lectures to RTU “Business Logistics” students on the topic “Maritime logistics”, while the lecturers of the RTU program give lectures to the students of Lithuanian Maritime Academy on Logistics supply chains and land transport. Thereby internationalization takes place between universities of both countries, experience exchange and transfer of specific knowledge to the students of the program.

Mobility of academic staff, international research collaboration within projects, and publications ensure that program content is changed and teaching methods are used in line with the latest trends in the world, thus helping to achieve defined learning outcomes.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The academic staff involved in the program participate in local, international,

academic, practical and scientific conferences. Involves in projects of various levels and prepares scientific publications. The data on academic staff involvement in scientific research and / or artistic creation both at national and international level is presented in Appendix 4.2.1., *List of academic staff publications for the reporting period*.

The results of research and projects are integrated into study courses and presented to students. For example, asoc.prof. V.Skribans in the study course “Modelling of Transportation Processes”, asoc.prof. I.Jurgelāne-Kaldava in the course “Statistics” and “International Business Planning”, asoc.prof. V.Ozoliņa, in course “Research work”, assist.prof. A.Auziņa-Emsiņa in course “Quantitative Methods for Economics”, etc.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

In order to ensure the interconnection of the study course content, the program study courses are audited each year, as well as various seminars where the lecturers involved in the implementation of the program introduce the course topics, teaching methods and discuss improvements to ensure higher content quality and current trends.

Analyzing the ratio of students to the number of lecturers involved in the study program at the time of submitting the self-evaluation report, on average program has 7.55 or 8 elected lecturers per student and 12 students per one industry specialist.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5. Statistics about students of study program "Business Logistics".pdf	5.pielikums. Statistikas dati par studējošajiem studiju programmā Uzņēmējdarbības loģistika.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6. Study program compliance to state education standard.pdf	6.pielikums. Studiju programmas atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7. Compliance of the study program to the profession standard.pdf	7.pielikums. Studiju programmas atbilstība profesijas standartam.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8. Mapping of study courses of the study program Business Logistics.pdf	8.pielikums. Studiju programmas Uzņēmējdarbības loģistika studiju kursu kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9. Study program Business Logistics plan.pdf	9.pielikums. Studiju programmas Uzņēmējdarbības loģistika plāns.pdf
Descriptions of the study courses/ modules	Appendix 10. Description of study courses modules Business Logistics.zip	10.pielikums. Studiju kursu moduļu apraksti Uzņēmējdarbības loģistika.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma profesional Bachelor_Business Logistics.pdf	Diploms profesionālais bakalaura_Uzņēmējdarbības loģistika.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Confirmation about possibility to continue studies.pdf	Apliecinājums par studiju turpināšanas iespējām.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study agreement sample.pdf	Studiju līguma paraugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Real Estate Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Real Estate Management</i>
Education classification code	<i>41581</i>
Type of the study programme	<i>First level professional higher education study programme</i>
Name of the study programme director	<i>Ineta</i>
Surname of the study programme director	<i>Geipele</i>
E-mail of the study programme director	<i>Ineta.Geipele@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr.oec</i>
Phone of the study programme director	<i>67089033</i>
Goal of the study programme	<i>The aim of the first level professional higher education study program is to provide the first level professional higher education in real estate management in accordance with the adopted professional standard – real estate manager (PS0286) – and pursuant to the Cabinet Regulations No.141 “Regulations Regarding the State Standard for the First Level Professional Higher Education” as of 20 March 2001 to ensure that the students acquire relevant theoretical knowledge and practical skills meeting the requirements of first level professional higher education, which allows commencing professional activities as a real estate manager (PS 0286): to ensure management of residential and non-residential houses, planning of reconstruction, renovation and refurbishment works, implementation and control of work completion.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>- to ensure acquisition of broad and up-to-date general knowledge allowing graduates to become involved in tackling problems of national economy and solving the issues concerning business performance in a particular institution or company;</i></li> <li><i>- to stimulate students’ interest in further education and personal development, enhancement of academic and professional knowledge;</i></li> <li><i>- to motivate students to advance their knowledge by developing economic thinking;</i></li> <li><i>- to implement the study process so as to develop students’ intellect, to stimulate their personal development and facilitate the use of their intellectual abilities in practical work;</i></li> <li><i>- to develop relevant competencies required in the labour market;</i></li> <li><i>- to provide students with an opportunity to acquire the qualification is close connection to their future job, to enhance their qualification, if required to undergo retraining;</i></li> <li><i>- to develop students’ analytical abilities and skills required for formulating the professional issues, solving related tasks and developing projects;</i></li> <li><i>- to stimulate students to become positive, responsible, capable and efficient personalities able to act independently and make the right decisions as well as develop students’ interest in socially responsible processes.</i></li> </ul>

Results of the study programme	<p><i>Able to responsibly and independently perform the duties of a house manager in accordance with the laws and regulations of the Republic of Latvia and European Union law.</i></p> <p><i>Able to plan and ensure administrative activities.</i></p> <p><i>Able to provide economic management and maintenance of houses.</i></p> <p><i>Able to organize technical servicing and maintenance of house constructions and engineering systems.</i></p> <p><i>Able to ensure the maintenance of the house and the land plot attached to it.</i></p> <p><i>Able to create and ensure working conditions appropriate to the environment, labor protection and fire safety in accordance with the requirements of labor protection, environmental protection and fire safety for the performance of direct work.</i></p> <p><i>Able to plan, organize and control house renovation and reconstruction works.</i></p> <p><i>Able to organize and control the execution of financial and legal work to be performed by the house manager in accordance with management agreements.</i></p> <p><i>Able to know and comply with the laws, standards and other regulatory enactments of the Republic of Latvia related to house management, house reconstruction, renovation or restoration.</i></p> <p><i>Able to review and coordinate all types of contracts related to house management, reconstruction, renovation or restoration work and ensure their control.</i></p> <p><i>Able to organize the execution of house management and administration works in accordance with technical regulations and concluded contracts.</i></p> <p><i>Able to know the basics and forms of management methods, the basics of collaborative psychology and management psychology and be able to apply them</i></p> <p><i>Able to draw up annual and long-term economic and reconstruction, renovation or restoration work plans and coordinate with the owners.</i></p> <p><i>Able to organize the preparation of budget planning, reports and financial statements (including the preparation and coordination of revenue and expenditure estimates).</i></p> <p><i>Able to organize the calculation, collection and settlement of payments specified in house management in accordance with the procedures specified in regulatory enactments with service providers and analyze the results of house management activities</i></p> <p><i>Able to orientate in the classification of houses, types of building structures and technical indicators.</i></p> <p><i>Able to organize inspection, supervision and maintenance of houses, building structures and engineering systems.</i></p> <p><i>Able to know the engineering communications used in the operation of houses.</i></p> <p><i>Able to orientate in the documentation and technological processes of reconstruction, renovation or restoration projects.</i></p> <p><i>Is able to know the structural solutions of buildings: the basics of strength and durability of buildings, the basic principles of design of load-bearing and enclosing structures, engineering communications solutions and construction basics.</i></p> <p><i>Able to orientate in the supply of building materials, know the basic properties of building materials</i></p> <p><i>Able to evaluate the performers of reconstruction, renovation or restoration work.</i></p> <p><i>Able to manage and implement energy saving measures in house operation.</i></p>
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Final examination upon the completion of the study programme	<i>Qualification paper</i>
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## Study programme forms

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>House Manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>House Manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Construction Industry Expert Council 17.12.2019. at the meeting discussed the issue of the discrepancy between the educational classification of real estate exploitation and management programs and the international classification of education and training sectors (International Standard Classification of Education: Fields of Education and Training, hereinafter ISCED - F 2013) and the Qualifications Framework for the Construction Industry.

The Council of Construction Experts requested the Ministry of Education to remedy the inconsistency of the International Real Estate Classification of Education and Training (ISCED - F 2013) with the Classification of Real Estate Operations and Management in Construction, At the meeting of the Tripartite Cooperation Sub-Council on Vocational Education and Employment (PINTSA), April 10, 2019, Protocol No. 2 to the approved Qualifications Framework for the Construction Industry. Classification of study programs in the field of real estate operation and management in the field of construction shall be classified by the Cabinet of Ministers Regulation No. 322 "Classification of Education in Latvia" curriculum code 581 or 582 "Construction and civil engineering" in the thematic area "Architecture and Construction".

During the reporting period, the education code was changed for the study program Real Estate Operation and Management in the Construction Sector with the aim to eliminate non-compliance with the International Standard Classification of Education: Fields of Education and Training (ISCED - F 2013) and Vocational Education and Training. at the meeting of the Tripartite Employment Sub-Council (PINTSA) on April 10, 2019, Minutes No. 2, for the approved qualification structure of the Construction Sector.

In order to change the education code, the decision of the commission of the study direction "Management, Administration and Real Estate Management" was adopted (22000-10.2 / 18, 03.12.2019), the decision of the Faculty of Engineering Economics and Management (protocol No. 49 (22000 - 1.1./24) 03.12. 2019), FEEM ICERE Council Decision (22500-2 / 8, 25.11.2019) LDDK Construction Industry Expert Council (NEP) Decision No. 6-10.1.1 / 3, 17.12.2019, with a decision to request to change the education codes in accordance with the Cabinet of Ministers regulations no. 322 "Regulations on the Classification of Education in Latvia" for the thematic area of education "Architecture and Construction" of the educational program code group 582 "Construction and Civil Engineering".

The updating of the standard of the profession of house manager will be completed in accordance with the planned works for all professions of the Construction industry profession map.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the**

## different study forms, types, and languages.

Analyzing changes in the number of students from academic year 2013/2014 to the academic year 2018/2019, it can be concluded that the total number of students increased from 47 to 63 students (Appendix 5).

The Figure shows the full-time student number dynamics. Very few full-time students choose the 1st level higher education program “Real Estate Management”. The number of students depends on the number state budget-funded seats.

Fig.1. Full-time students at the study program.

This can be explained by demographics and the decrease in the total number of students in the country, as well as by the fact that the tuition fee was increased, but the number of state budget funded seats was not increased during the last 6 years. In case of studies covered from tuition fees students choose part-time studies due to comparatively high tuition fees.

The following Figure provides comparison between the number of full-time and part-time students.

Fig. 2. Full-time and part-time student number dynamics.

Analyzing the data, it may be noticed that the number of students in part-time studies demonstrates considerable growth. Students give preference to part-time studies due to the fact that they can unite their work in the selected field and their studies at the university.

Analyzing the number of graduates, it should be concluded that it is not large, as only those students, who have fulfilled all commitments, both academic and financial, are eligible to publicly present their qualification papers.

Fig. 3. Changes in the number of graduates at the study program.

A fraction of the students constituting about 30% states that it is not possible to finish studies due to workload; a fraction of 10% stated that they could not complete studies due to individual or family health issues.

As indicated by analysis of annual student drop-out rates, academic failure is the main reason for drop-out, however, some students, who dropped out in the last year of studies because they could not timely (due to increasing workload) elaborate their qualification papers. Shortage of financial resources is another important reason in case when tuition fees and other outstanding commitments should be settled.

The study program is assigned a small number of budget-funded seats.

Table 1. The number of budget-funded seats in the study program

Other students study using private sources of finance. Some students have their tuition fees paid by their employers, because these students do not always have sufficient financial means to pay for their studies. As a consequence of the previous financial crisis in the country, the applications of some students and their credit support providers for the student and learning loans were rejected due to doubts in their solvency.

The study program is implemented in Latvian, although every year one of the study courses is conducted in English, for example, in academic year 2018/2019 the study course “Real Estate Economics” for the first-year students was delivered in English.

The study program is interdisciplinary; therefore, students should undertake industry-related study courses to make sure that upon completion of their studies they acquire the knowledge required by a definite professional standard.

There are no foreign students at the study program.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The aims and tasks, as well as the awarded qualification of the 1st level higher education professional study program “Real Estate Management”, have been reconciled with the requirements of the leading industry professionals of the Association of Management and Administration of Latvian Housing and the Guild of Latvian House Managers, to ensure students with the opportunity to acquire thorough knowledge in real estate management and its skills of its practical application.

The Institute of the Civil Engineering and Real Estate Economics of the Faculty of Engineering Economics and Management (FEEM) of Riga Technical University closely cooperates with professional associations, which are members of such international organizations (associations) as FIABCI and CEPI. The aims and tasks of the study program are reconciled with the general professional requirements of these organizations worldwide and in Europe. Already since 2006 the Institute of the Civil Engineering and Real Estate Economics of RTU FEEM is a member of the International Real Estate Federation FIABCI.

The study program “Real Estate Management” is an innovative, significant and unique interdisciplinary study program aimed at the acquisition of thorough knowledge in civil engineering and technologies in the field of civil construction and power engineering, which are necessary in real estate management, because the qualification acquired within the study program of Real Estate Manager (House Manager) is included in the structure of professions in Civil Engineering of the Latvian national economy. It is envisioned that the graduates will conduct their professional activities at different civil engineering companies and state administration institutions. Acquisition of the appropriate skills and knowledge within the study program is provided by academic and scientific personnel of the European level (the EU and Latvian experts in the field of sustainable management and maintenance), who on a daily basis are involved in solution of engineering problems at the European level.

The title of the study program, the awarded degree, professional qualification, aims and tasks, as well as learning outcomes and enrolment requirements are mutually coherent and consistent.

Performance of the tasks is assessed considering student learning outcomes, individually elaborated qualification paper of significant theoretical and practical value, which presents original research results, demonstrates student competence to independently obtain, select, and analyze the data and use them for problem-solving in the field of real estate management.

The qualification of a Real Estate Manager is awarded upon completion of theoretical tests, internship tasks and public presentation of the qualification paper at of the State Examination Committee.

The multi-sectoral approach applied in the course of implementation of the study program allows students to use their theoretical knowledge in practice in analyzing and solving relevant problems of certain companies or institutions, which provides for the maximal student integration into the real working environment. Implementation of the study program is focused on the application of innovative technologies and their comprehensive assessment for development of sustainable economy.

The results of knowledge assessment for the students of the study program “Real Estate Management” are discussed twice a year at the meeting of ICEREE Board. The results are also summarized and assessed by the program administration and serve as the basis for further enhancement of the study process. Comments on the quality of qualification papers and their viva voce are provided by the Graduation Paper Committee, which submits its report on the publicly presented qualification papers to the study program administration.

The program provides students with professional knowledge of real estate management, thus educating and training multi-profile and professional specialists in real estate management.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master’s and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The study program has been developed in cooperation with the professional organizations – the Association of Management and Administration of Latvian Housing and the Guild of Latvian House Managers to let students acquire comprehensive knowledge of real estate management, learn how to apply it in practice, to develop the necessary competence to analyze the data and make decisions independently, as well as to demonstrate that they are aware of the norms of professional ethics. The program provides students with professional knowledge in the profession of Real Estate Manager, educating and training multi-profile real estate management specialists.

The aim of the 1st level professional study program is to provide the 1st level professional higher education in real estate management, the scope of theoretical knowledge and practical skills according to the professional standard “Real Estate Manager” and Cabinet Regulations No. 141 (of 20 march 2001 “Regulations regarding the State Standard for First Level Professional Higher Education”) on the scope of theoretical knowledge and practical skills conforming to the requirements of the first level professional education, which allow starting professional activities as a real estate manager: ensure management of residential and non-residential houses, planning, execution and control of reconstruction, renovation and refurbishment works.

A real estate manager can take job positions at the state and municipal institutions, commercial enterprises, non-governmental, international and national organizations that operate in the field of

real estate management and maintenance, and in the related fields.

The study program "Real Estate Management" is a program open to cooperation, which takes into account the aims and tasks set forward to the first level professional higher education, as well as regional and state interests coordinated with the needs of students and employers.

Every year in October the administration of the study program reports to the members of the Association of Management and Administration of Latvian Housing and the Board of the Guild of Latvian House Managers about the study program, its study courses and their curricula. As required and upon recommendations of the industry expert, amendments and additions to the curriculum are made to account for the current industry and labor market development trends.

Construction Industry Expert Council 17.12.2019. at the meeting discussed the issue of the discrepancy between the educational classification of real estate exploitation and management programs and the international classification of education and training sectors

(International Standard Classification of Education: Fields of Education and Training, hereinafter ISCED - F 2013) and the Qualifications Framework for the Construction Industry.

The Council of Construction Experts requested the Ministry of Education to remedy the inconsistency of the International Real Estate Classification of Education and Training (ISCED - F 2013) with the Classification of Real Estate Operations and Management in Construction, At the meeting of the Tripartite Cooperation Sub-Council on Vocational Education and Employment (PINTSA), April 10, 2019, Protocol No. 2 to the approved Qualifications Framework for the Construction Industry. Classification of study programs in the field of real estate operation and management in the field of construction shall be classified by the Cabinet of Ministers Regulation No. 322 "Classification of Education in Latvia" curriculum code 581 or 582 "Construction and civil engineering" in the thematic area "Architecture and Construction".

Every involved member of academic staff has sufficient number of scientific publications on the themes covered by the respective study course.

Since the last accreditation, the curriculum of the study program has been updated so that the curriculum remains relevant, complimentary, meeting the program aims and tasks and providing learning outcomes, as well as meeting the needs of real estate management sector and the latest trends in science and practical applications.

In academic year 2014/2015, the work on the study program curriculum updating was completed to put the program in compliance with modern requirements and professional standards. According to a new edition of the state standard and RTU Senate Resolution of 23 March, 2015 "On the Uniform Requirements towards Study Programs at Riga Technical University", in cooperation with employers and program counselors, the amendments to the study program were elaborated, adding new study courses, as well as making changes to the curriculum of the study courses to ensure their conformity to modern market requirements and professional standards.

In academic year 2018/2019 the work on the study program amendments and curriculum update continued to avoid duplication of the study course curriculum and fragmentation of the study program, and the changes to the study field "Management, administration and real estate management" have been approved at the meetings of the Study Field Committee.

Changes approved in 2019 1st Level Professional Higher Education Study Program "Real Estate Management - IKN0" Limited Choice (B1 - Professional Specialization Courses) Excluded Study Courses IBO432 European Law - 2CP; IBO487 Topographic Surveys of the Property - 2CP; BTG151 Technical Drawing Basics - 2CP; IUE233 Computer Training for Economists - 2CP; IMP443 Record Keeping and Correspondence - 2CP; IUV301 Business Management - 4CP; IMP431 Administrative

Law - 2CP; IMP306 Economic Law - 4CP; EEM261 Electrical Engineering and Electronics (Builders) - 2CP; IUE225 Mathematics for Economists - 4CP and exclude HFL336 Fundamentals of Ethics - 2CP from the Limited Choice Humanities and Social Studies (B.2 Humanities and Social Studies) section

The curriculum of the study program is updated in cooperation with professional real estate management organizations, for instance, the Association of Management and Administration of Latvian Housing, the Association of Riga Real Estate Managers, etc., to let students acquire comprehensive knowledge in the fields related to real estate management, skills to apply it in practice, to be competent analyzing information and making independent decisions within the scope of their professional competence, as well as to observe the norms of professional ethics.

The program provides students with professional knowledge in appropriate professions, educating and training multi-profile and professional industry specialists.

Every academic year consists of 2 semesters, each lasting 20 weeks – 16 study weeks and a 4-week long examination session. Part-time studies at RTU are organized according to RTU Senate decisions and orders of the university administration.

Riga Technical University is a derived public entity with the right for self-government. Its Development Strategy defines the role of the University in the society as of an educational and scientific research institution, as well as its mission, vision, aims and tasks.

Elaborating RTU Development Strategy and taking into account the role of the University in the development of the Baltic Sea Region and the future of Latvia, both priorities of the European Union and the guidelines of planning documentation on the national and regional policy in education and innovations were taken into consideration.

The program meets the main principles laid down in Riga Technical University (RTU) Strategy and Development Program for the period 2014 – 2020: to ensure implementation of the leitmotiv referred to in the National Development Plan for 2014-2020. RTU positions itself as a cornerstone of the development of Latvia, which ensures education of specialists necessary for Latvian national economy and development of new products and services, serving as a basis for sustainable growth of Latvia. RTU contains the core targets of the RTU development until 2020, as well as defines the activities and distribution of responsibilities for implementation of the tasks.

In order to implement RTU vision to become the leading University of science and innovation in the Baltic States by 2020, the strategy defines three objectives of the university – high quality study process, excellence in research and sustainable innovation and commercialization activities. Specific result-based targets have been determined for these objectives.

Successful implementation of RTU Development Strategy provides the basis for the establishment of knowledge-based Latvian society; RTU is one of the most important partners in achievement of the strategic aim set in the National Development Plan of Latvia – education and knowledge for economic growth and technological excellence.

RTU mission is to ensure internationally competitive high-quality scientific research, tertiary education, technology transfer and innovation for Latvian national economy and the society.

The aim of the high-quality study process is education and training of internationally competitive analytically and creatively thinking specialists in the course of prestigious, internationally recognized high-quality studies, who will provide for the development of the Latvian economy and who have the capacity of lifelong learning. The aim of excellent research is high quality scientific research that meets the demands of the Latvian and international economy, is well integrated in international, state and economic industry-oriented research programs and integrated in the study process. The aim of sustainable valorization is development of effective environment for technology

transfer and innovation development that stimulates establishment of new technological companies and creation of new products.

In Latvia, at the regional level, specific qualification advancement opportunities are defined (lectures and workshops) to fulfil the requirements of the Energy Charter, embracing the requirement-adapted topics, which is attested by the cooperation with LR Ministry of Economics and LR VARAM in 2009 – 2020. Within these workshops, both representatives of the mentioned Ministries and foreign specialists participated as the lecturers.

Thus, for instance, in April – March 2014, both students and lecturers could attend lectures on building construction, renovation and reconstruction updates in the EU delivered by Andrzej Czemplik from Wrocław University of Technology.

In October 2014, both students and University lecturers could attend the lectures “Real Estate Development” and “Real Estate Life Cycle Assessment”, which were organized and conducted in English by the foreign lecturers – Dr. Frank Riemenschneider (Fachhochschule Münster University of Applied Sciences, Germany), Dipl.-Ing. Martin Weischer (Münster University of Applied Sciences, Germany), and Dr.-Ing., Arq. Ruben A. Bancrofft H. (Guest professor at Fachhochschule Münster University of Applied Sciences, Germany, and Professor at Instituto Superior Politecnico Jose A. Echeverria La Habana, Cuba). In its turn, the workshop “Construction cost estimating and procurement prices. Construction Law and relevant Cabinet Regulations” was organized in cooperation with the Faculty of Civil Engineering on 5 February, 2015.

On 23 October 2014, in the framework of the information campaign “Live Warmer” Riga Technical University (RTU) held the workshop “Insurance in building construction and housing reconstruction”. The parties involved in the reconstruction of apartment buildings were invited to participate in the workshop.

On 15 September 2015, the workshop “Topicalities in the field of Real Estate and Building Construction, their integration in the study process in tertiary education” was organized in cooperation with the Latvian Association of Real Estate Managers and Administrators and the Guild of Latvian House Managers, while in August the Association of Latvian Real Estate Managers and Administrators organized the annual workshop for professionals and students “Management and housing insurance in the residential block-of-flats in Germany, new fire safety requirements for apartment buildings, roof repair practices”, which has become a tradition.

In February 2016, the workshop “Construction Law and Binding Cabinet Regulations” was organized in cooperation with the Faculty of Civil Engineering to assist the students in elaboration of their graduation papers.

The study process is organized in such a way as to include real estate management and administration issues into the study and research topics investigated by the students. It enriches and updates the study program in the course of its implementation, based on labor market research and consultations with the employers and practicing industry experts.

A 3-hour lecture “Practical Aspects of Building Construction Business: Latvia and Lithuania” was conducted by Jurga Naimaviciene and Loreta Kanapeckiene from Vilnius Gediminas Technical University (Lithuania) in cooperation with the Latvian company “Transparence” Ltd within the study course “Practical Aspects of Building Construction Business”.

Within the study course “Management of Ecology”, the cycle of lectures “Introduction to management of growth and development. Models of economic growth and their empirical applications. Technological change, sources of income and growth differences across countries. Tools of management of growth and development. Key empirical issues in management of growth



and development” was conducted by the visiting lecturer Olha Prokopenko from University of Bielsko-Biala (Poland).

Besides, visiting lecturers from different Latvian companies regularly participate in the study process. Along with the academic personnel, industry professionals are also involved in the implementation of certain study courses, thus, for instance, the hands-on practical part of the study course “Real Estate Finance Records” was conducted by the certified real estate tax counselor Mg.sc.oec. Olga Zadorožanaja from the audit agency Grafa Ltd.

Students have an opportunity to visit companies in the industry on the study tours. In autumn and spring semesters of academic year 2015/2016m students got familiarized with the work of various management and construction companies under the guidance of Assistant Professor O. Caune and lecturer G. Birkmanis.

Professor I. Geipele organized a study tour to “Rīgas Namu pārvaldnieks” Ltd., whereby students could get familiar with the largest Latvian management and administration company.

In December 2016, 1st year students had a study tour to the waste management company “Getliņi EKO”, the largest in Latvia. During the study tour, students could get acquainted with the company, its operations, and the principles of waste disposal. Students listened to the company representative Anda Zandberga’s lecture about the company “Getliņi EKO”, waste disposal policies, waste sorting. The students could also visit the greenhouses and learn about the principle of their operation. They were shown two short documentaries about the history of the waste disposal site and operation of the waste sorting plant.

The tradition to visit industry-related companies in the scope of study tours is being continued. At the end of 2017, the program students had an educational tour to the waste disposal facility “Getliņi EKO”.

In autumn and spring semesters of academic year 2016/2017, students got familiar with the work of different management and construction companies under the guidance of Assistant Professor L. Šnīdere, listened to lectures at JSC Rīgas Siltums, visited the Laboratory for Mathematical Modelling of Environmental and Technological Processes, Energy Efficiency Centre in Jūrmala.

In academic year 2018/2019, students had an opportunity to visit Z-Towers, when under the guidance of Assistant Professor K. Fedotova and scientific assistant Iveta Stāmure they had a study tour, and the employees of the Management Department informed students about the specifics of site management.

In December 2018, Professor Ineta Geipele and scientific assistant Iveta Stāmure organized a study tour to CDzP Ltd sites in Riga, Sigulda and Cesis. Students could get familiar with the activities and different facilities managed by the company, they could communicate with the company’s employees and the residents of the visited sites.

The study program “Real Estate Management” is a program open for cooperation that takes into account the aims and tasks of higher education, as well as regional and national interests, which are related to the needs of students and employers.

RTU development is regularly planned, including the integrated prospective financial program, guaranteeing achievement of the program aims and management of possible risks, also demographic ones. The development program has a certain action plan aimed at ensuring sustainability both for RTU as a whole and for the respective study field.

Quality policy is maintained at all RTU faculties, organizational units and branches; its pursuit is stipulated in detail in the Quality Management Manual.

Employers' representatives regularly take part in the work of the Graduation Paper Defense Committee to evaluate students' knowledge in the study program. By participating in Thesis Defense Commissions, industry representatives are able to make suggestions on student research topics that are relevant to the labor market and are also taken into consideration in other academic years.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program "Real Estate Management" is implemented through the combination of lectures, practical classes, study tours, as well as self-studies, while acquiring the basics of real estate management and building construction, as well as relationships between this sector and other sectors of the national economy.

The strategic aims of the program are as follows:

- 1) to educate and train the students in the profession of a real estate manager, promoting their growth as mentally and physically developed, free, responsible and creative personalities;
- 2) to promote acquisition of knowledge and skills (also self-studying skills), which provides professional qualification of Level 5 EQF and contributes to student competitiveness in the changeable socio-economic circumstances;
- 3) to motivate students to continue studies and to provide them an opportunity to gain the 2<sup>nd</sup> level professional higher education and professional qualification of Level 6 EQF.

Information, learning outcomes, aims and other parameters across all the study courses are interrelated, so as to provide continuity and efficient acquisition of skills and competences. The aims of the study courses are reconciled with the aims and learning outcomes of the study program, i.e. the aim of the study program is to award the 1<sup>st</sup> level professional higher education in real estate management according to the requirements of professional standard "Real Estate Manager", by providing the body of theoretical knowledge and practical skills, which allow starting professional activities as a real estate manager: ensure residential or non-residential house management, planning, organization and control of refurbishment, renovation and reconstruction works.

*The mission* of the 1<sup>st</sup> level professional higher education program "Real Estate Management" is to provide the Latvian economy and society with internationally competitive high quality higher education, scientific research, technology transfer and innovation, and to educate and train commercially successful high quality experts in real estate management who are competitive in the international labor market based on the latest scientific developments across the world.

The vision of Riga Technical University is that it is a modern and prestigious University, internationally recognized as the leading university of science and innovation in the Baltic States – a cornerstone of the development of Latvia.

*The development vision* of the 1<sup>st</sup> level professional higher education program "Real Estate

Management” is as follows: an opportunity to provide the appropriate quality of living environment for everyone based on the *knowledge of sustainable use of energy and natural resources and the methods of their generation and management* in the field of real estate and to ensure high quality training of the Latvian and foreign specialists, in cooperation with state institutions and employers regularly solve the problems related to development of real estate engineering economics and management (in addition see Section 1.1)

RTU Development Strategy serves as a basis for elaboration of RTU Development Program and drawing up of an annual strategic investment plan for development projects, which is to be implemented using RTU budget and the financing from the Latvian government, the EU structural funds or other sources of finance. Implementation of the investment plan ensures fulfilment of the tasks stated in the Strategy. RTU Senate approves the procedure for the implementation of the Development Strategy and additions or amendments made thereto. Supervision of the Development Strategy and result-oriented management system motivates organizational units and employees to achieve the aims of the Development Strategy.

The future perspective or vision of the 1<sup>st</sup> level professional higher education program “Real Estate Property Management” considers opinions of students, employers, professional organizations and regional interests; it is in compliance with RTU mission, vision, aims and tasks.

A person responsible for building management and maintenance, etc., should be competent in all issues connected with engineering sciences, materials science, power engineering, as well as administrative property management, maintenance, management, operation, evaluation, financial accounting and other kinds of accounting, compliance with the legal norms, legislation regulating apartment use, taxes and labor, commercial activities – fulfilment of contractual obligations providing public utility services, fulfilment of lease, tenancy, insurance agreements, direct real estate management, rehabilitation, repair and conservation of apartments, houses, and plots of land.

In academic year 2014/2015, the work on the study program curriculum was conducted in compliance with the current requirements and the professional standard. According to a new edition of the state standard and RTU Senate Resolution of 23 March, 2015 “On the Uniform Requirements towards Study Programs at Riga Technical University”, in cooperation with employers and program counselors, the amendments to the study program were elaborated, adding new study courses, as well as making changes to the curriculum of the study courses to ensure their conformity to modern market requirements and professional standards.

The curriculum of the study program is improved in cooperation with professional real estate management organizations – the Latvian Association of Real Estate Managers and Administrators and the Guild of Latvian House Managers to let students acquire comprehensive knowledge in real estate management, be able to apply it in practice, as well as be competent to analyze information independently, make decisions and demonstrate awareness of the norms of professional ethics.

The program provides students with professional knowledge necessary for a real estate manager by educating and training universal and professional experts in real estate management.

Every academic year consists of 2 semesters, each lasting 20 weeks – 16 study weeks and a 4-week examination session. Part-time studies at RTU are organized according to RTU Senate resolutions and orders of the University administration.

Riga Technical University is a derived public entity with the right for self-government. Its Development Strategy defines the role of the University in the society as of an educational and scientific research institution, as well as its mission, vision, aims and tasks.

In academic year 2014/2015, the aims and tasks of the Institute of Building Entrepreneurship and Real Estate Economics were updated. In general, the aims formulated for FEEM programs and the certain program result from RTU strategic aims: high quality study process, excellent research, sustainable innovation. The Strategy is based on 3 main aims of the University and pervades 5 major University priorities – internationalization, interdisciplinarity, organizational, financial, and infrastructure efficiency. These 5 horizontal priorities are used by RTU as the prism to focus on realization of its aims and to provide internationally competitive high-quality scientific research, tertiary education, technology transfer, commercialization and innovation necessary for the Latvian national economy and society.

The studies are organized in such a way as to include real estate management and administration issues into the study and research topics. It enriches and updates the study program in the course of its implementation based on the labor market research and consulting with employers and practicing industry experts.

The 1<sup>st</sup> level professional higher education program “Real Estate Management” is a program open for cooperation that takes into account the aims and tasks of higher education, as well as regional and national interests reconciled with the needs of students and employers.

The curricula and volume of examinations are in compliance with the content determined in study course syllabi and the requirements for professional qualification skills and knowledge. All conditions for obtaining credit point are described in programs of each study course descriptions.

The requirements of the professional standard, following their evaluation at the Latvian Construction Council will update and strengthen liability of real estate operators towards their clients – the owners of buildings and constructions and the owners of apartments. Therefore, additional amendments and changes to descriptions of the study courses shall be made.

Evaluation of the compliance of the 1<sup>st</sup> level professional higher education study program “Real Estate Management” with Cabinet Regulations No.141 “Regulations on the first level professional higher education state standard” is presented in Appendix 6.

The study program has been elaborated according to Education Law, Law On Institutions of Higher Education and Vocational Education Law so as to maximally support achievement of the aims of the study programs and facilitate implementation of the tasks.

The study system at the University is regulated internally with the documents that govern student-university relations and the documents that govern the processes and organization of studies, which are available in the office of the program administration and in the digital format on RTU home page, as well as according to Cabinet Regulations No 141 (of 20 March 2001 “Regulations on the first level professional higher education state standard” stipulating the requirements for the 1<sup>st</sup> level professional higher education.

The structure of the study program fully meets Cabinet Regulations of the Republic of Latvia that regulate the compulsory content of the professional higher education study program.

Comparison of the 1<sup>st</sup> level professional higher education study program “Real Estate Management” with the Real Estate Management professional standard, approved by the resolution of the Ministry of Education and Science No 719 (PS 0286) of 9 November 2004, updated by Minutes No 4 of the meeting of the Tripartite Cooperation *Sub-Council of Vocational Education and Employment* on 18 April 2009, and Cabinet Regulations No 461 of 18 May 2010. The profession of Real Estate Manager is included in the list of Cabinet Regulations No 626 of 9 October, 2018 “Regulations on the mandatory professional standard and the list of professional qualification requirements, as well as the procedure of publication for the professional standards and qualification requirements

contained therein" as the professional occupation governed by a mandatory professional standard. As the result of the study course curriculum implementation within the study program real estate management and maintenance specialists in the field of building entrepreneurship with the fourth professional qualification level (Level 5 EQF) are trained.

The volume of the study program and its structural distribution meets the national education standard. The volume of the program and study courses is expressed in credit points.

Program volume - the volume of the study program and its structural distribution meets the national education standard. The volume of the program and study courses is expressed in credit points.

*The nominal duration of studies* is 2 years (full-time studies) and 2.5 years (part-time studies). The total volume of the study program is 80 CP.

**Table. Distribution I of the study program**

• A. Compulsory study courses, including	42 KP		52,5 %
○ general study courses (A.1)		16 KP	38 %
○ Basic theoretical courses in the field and courses in information technology (A.2)		26 KP	62%
• B. Compulsory electives including	14KP		17,5%
○ specialized study courses (B.1)		10 KP	72%
○ humanities / social and management courses (B.2)		2KP	14%
○ languages (B.3)		2 KP	14%
• D. Practice	16 KP		20%
• E. Qualification work	8 KP		10%
<u>Total:</u>	80 KP		100%

According to Cabinet Regulations No 141 (of 20 March 2001 "Regulations regarding the State Standard for First Level Professional Higher Education") the structural distribution of the volume of the program parts mentioned above is as follows:

**Table. Distribution II of the study program**

1.	Study courses:	56 KP	70%
1.1.	general study courses A.1+B.2+B.3	20 KP	25%
1.2.	study courses related to the field A.2+B.1	36 KP	45%
2.	Practice	16 KP	20%
3.	Qualification work	8 KP	10%
	<u>Total:</u>	80 KP	100%
	<u>Amount allocated to a specific sector (1.2.+2+3)</u>	60 KP	75%

The total volume of the program is 80 CP. The study courses take 70 % of the total volume of credit points. The volume committed to a certain field is 60 CP or 75%.

According to a new edition of the state standard and RTU Senate Resolution of 23 March, 2015 "On the Uniform Requirements towards Study Programs at Riga Technical University", in cooperation with employers and program counselors, the amendments to the study program were elaborated, adding new study courses, as well as making changes to the curriculum of the study courses to ensure their conformity to modern market requirements and professional standards.

- Compliance of the 1<sup>st</sup> level professional higher education program “Real Estate Management” with the professional standard

As the result of the study course curriculum implementation within the study program real estate management and maintenance specialists in the field of building entrepreneurship with the fourth professional qualification level (Level 5 EQF) are trained.

According to the requirements of the regulatory enactments, the study program includes the study course Civil Defense.

As the result of the study course curriculum implementation within the study program real estate management and maintenance specialists in the field of building entrepreneurship with the fourth professional qualification level are trained.

The 1<sup>st</sup> level professional higher education study program “Real Estate Management” meets the requirements of the professional standard for a Real Estate Manager (House Manager), which was approved by the resolution of the Ministry of Education and Science No 719 (PS 0286) of 9 November 2004, updated by Minutes No 4 of the meeting of the Tripartite Cooperation *Sub-Council of Vocational Education and Employment* of 18 April, 2009, and Cabinet Regulations No 461 of 18 May 2010. Comparison of the study program with the professional standard is presented in Appendix 7.

Development trends in real estate and building construction sectors worldwide and in Latvia have defined the need for appropriate changes to the curriculum of the study courses and internship to enhance and improve them according to the requirements of real estate market and building construction sector. The curriculum is reflected in the program of the study course. The curriculum of the study course within the study program “Real Estate Management” is reviewed once a year to update it with regard of the changes in building construction, real estate management and maintenance, as well as economics changes, as provided for the study program within each study course. All study courses within the study program have been reviewed and approved according to internal RTU resolutions.

In academic year 2017/2018, a mapping was made, which analyzed interaction of the aims and learning outcomes stipulated in the descriptions of all study courses with the requirements of the professional standard and the aims of the study program. Analysis of that matrix allowed crystallizing their position in the descriptions of the study courses, which need to be elaborated. Upon presentation of the developed matrix or mapping, recommendations, which allow enhancing study courses, were received.

The trends in real estate and building construction sectors worldwide and in Latvia have defined the need for appropriate changes to curricula of the study courses and internship to enhance and improve them according to the requirements of the real estate market and building construction sector.

Commencing their studies, students receive a brief fact sheet, containing important information about organization and practical implementation of studies.

According to a new edition of the state standard and RTU Senate Resolution of 23 March, 2015 “On the Uniform Requirements towards Study Programs at Riga Technical University”, in cooperation with employers and program counselors, the amendments to the study program were elaborated, adding new study courses, as well as making changes to the curriculum of the study courses to ensure their conformity to modern market requirements and professional standards.

To accomplish the aims of the Latvian state economic policy, a new labor market needs education and employment policies in that provide full use of human resources, thus creating a sound

foundation for economic growth.

Study curriculum is reflected in the syllabus for each study course. The curricula of the study courses within the study program “Real Estate Management” are reviewed once a year to update them with regard of the changes in the industry and economy, as provided for by the study curriculum of each study course.

RTU development is regularly planned, including the integrated prospective financial program, guaranteeing achievement of the program aims and management of possible risks, also demographic ones. The development program has a certain action plan aimed at ensuring sustainability both for RTU as a whole and for the respective study field – to ensure sustainability of the 1<sup>st</sup> level professional higher education program “Real Estate Management”.

Quality policy is implemented at all RTU faculties, organizational units and affiliations, its pursuit is stipulated in detail in the quality management manual.

The role of the Faculty of Engineering Economics and Management in quality assurance is mainly realized in the form of *study process* quality control, in its turn, the role of the institute consists in *the study curriculum* quality assurance and management.

During the studies, students have opportunities to take part in evaluation of the study program. Students are polled about the curriculum of the study courses, the quality of teaching and organization of the study process using anonymous questionnaires in ORTUS to be filled in individually. Since 2009, when the program’s graduates started taking job and internship positions, employer surveys also have been organized. The study methodology is managed by RTU Methodological Committee, Commission of the study field “Management, Administration and Real Estate” of FEEM, but organizational issues are controlled by the Study Department. The Study Department supervises study plans of all faculties and regularly performs their analysis and harmonization.

*As far as the Institute of Building Entrepreneurship and Real Estate Economic of RTU FEEM has been a member of International Real Estate Federation FIABCI-International already since 2006, the aims and tasks of the educational program are harmonized with the rules of these organizations regarding general professional requirements in the world and in Europe: move towards the experience “We – to the European Union”, which attests high level of the study program and the uniform level of qualification across the European Union.*

The members of academic personnel, whose study courses are included in the study plans of the autumn or spring semester of a certain academic year within all higher-level study programs for full time and part-time studies, post the course plans in e-learning system ORTUS. The plans comprise topics of all the lectures and practical classes, laboratory works, etc., as well as the requirements for obtaining positive assessments within the study course, which describe all prerequisites the student should meet in order to obtain a positive assessment for subject acquisition (for example, information about planned tests and self-study tasks, pre-examination criteria and other information concerning the requirements that can impact evaluation of a student’s work).

In order to ensure interaction between the knowledge, competences and skills developed by the graduates, in the course of elaboration and implementation of study courses special emphasis is made upon:

1. consideration of relevant challenging situations in the curriculum of the study program (within the scope of lectures, practical classes), including analysis of real case studies of study program partner companies and solutions to the problems within the curriculum of a concrete study course;

2. application of up-to-date teaching methods (specialized software tools, application of joint decision-making algorithm, solution-oriented methods, etc.);
3. to ensure integrity of the study courses and the study program, using overlapping course approach, for example, applying Concept Mapping and Mind Mapping, etc. for this purpose;

Individual approach to students is ensured adopting the following means:

1. learning aids are provided as either handouts, electronic materials or presentations;
2. if necessary, lecturers plan individual meetings and tutorials for the students, because all lecturers have certain tutorial times, which students can get familiarized with at the first lecture, tutorial times are also available on [buni.rtu.lv](http://buni.rtu.lv) and [ievf.rtu.lv](http://ievf.rtu.lv);
3. individual approach is ensured through selection of applied teaching techniques, analysis of individual topics and problems during the lectures, practical classes, laboratory works and workshops;
4. when choosing the themes for the qualification papers, student wishes and work specifics in the chosen field of specialization are taken into account;
5. intense and regular communications is maintained through e-mail, ORTUS, and home page.

The aim of the study program meets Level 5 of European Qualifications Framework (EQF) and Latvian Qualifications Framework (LQF) and is achieved in the process of its implementation.

In the course of the program implementation a two-way feedback is ensured. Students receive regular feedback from the instructors on the submitted tests, course, exam and study projects, reports, internship reports and presentations. In their turn, at the end of the study course the academic personnel can organize a survey concerning student satisfaction with the curriculum, their wishes, as well as to receive their proposals.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study program is implemented in two variants, full-time, intramural form and part-time extramural form in Latvian, uniformly complying with the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The course descriptions of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points do not depend on the implementation variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the



requirements, set in the program and in each course, in comparison with full-time studies, part-time studies have a longer program acquisition time and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in different types and forms of studies, the study courses differ only in the number of full-time (or contact hours) and independent work hours and the course teaching methodology or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role.

For example, study courses Real Estate Marketing and Project Management in Civil Construction Business and Real Estate Management and Administration, etc., using the principles of metacognition, students plan their activities according to their own set learning goals and independently manage their learning process, at the same time assessing themselves and their achievements, as well as analyzing what they have gained in the study course and the learning process in general. The study course Management of Ecology uses situation analysis, analyzing the existing processes and problems, as well as developing current issues in the implementation of environmental protection requirements in the field of real estate.

Democracy and dialogue with the students, their active involvement in study process improvement are among the main principles practiced at the study programs implemented by RTU FEEM. Students take part in the study process improvement either directly, i.e. expressing their suggestions to the instructor delivering a particular study course, the heads of the chairs, or the head of the program, or with the help of student self-government, whose representatives participate as members in the work of FEEM Council, RTU Senate and RTU Senate Committees, as well as the work of RTU Academic Assembly.

The administration of the study program considers that relations between FEEM and students are characterized with mutual confidence, respect and integrity, which support understanding, correct perception and develops ability to apply the gained knowledge.

To provide for compliance with the principle of democracy, once a semester, students evaluate the work of professors, assistant professors, lecturers and visiting lecturers by filling in an anonymous questionnaire in ORTUS system. RTU Study Department regularly organizes the polling of portal user and different kinds of surveys in ORTUS system, including two evaluations of the academic personnel performance during the academic year. Thus, students can provide their feedback on the quality of study courses and professional performance of the academic personnel. Survey questionnaires consist of questions concerning availability of study literature for each study course, evaluation criteria, working culture and quality, observation of student rights during the studies, time allocated for independent studies, and academic discipline. In the final part of the questionnaire students may express their suggestions and recommendation for improvement of the study course and the quality of the instructor's work. The questionnaires are completed anonymously, so that the provided answers could not influence instructor's attitude towards a concrete student or student group to ensure achievement of the aim – to receive objective assessment form the students. Nevertheless, it should be noted that not all students use this opportunity.

FEEM student self-government plays a major role in promoting cooperation among the students, academic staff and program administration; it actively participates in all processes mentioned above and conducts annual assessment of the academic staff. In order to honor the best

instructors, the annual FEEM prize of honor has been established, which is a student organized event to evaluate the performance of the academic staff.

The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods as group work, case studies, seminars, discussions, field trips to industry companies and real estate objects in order to acquire and reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations are used.

In addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours.

By organizing study tours and study visits, the study program is linked to the specifics of the field, students acquire not only theoretical knowledge, but are able to relate it to everyday situations in real estate management companies, analyze problems and argue their opinion.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform, is used for the implementation of the program. The students of the study program as well as the academic staff and visiting lecturers regularly use it. The portal provides the students with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student's knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, use interactive whiteboard and other audio / video and technical aids.

To achieve positive learning outcomes within the 1<sup>st</sup> level professional higher education program "Real Estate Management" in the course the studies, students are familiarized with study aims, tasks and learning outcomes, as well as with assessment criteria both when commencing studies in the 1<sup>st</sup> study year and at the beginning of each study course. Students are timely informed about the assessment criteria of exams, tests and other assessment tests according to RTU Study Regulation.

Every study course description includes the summary break-down of total assessment.

The contents and volume of examinations comply with the curriculum of the study courses and the requirements towards professional qualification skills and knowledge. All conditions for credit point acquisition are stipulated in the syllabus of each study course.

The main principles of assessment of education results are as follows:

- the principle of summarizing positive assessments;
- the principle of compulsory assessment;

- the principle of clarity and transparency of assessment criteria;
- the principle of variability of assessment forms;
- the principle of testing availability.

The quality of the acquired education is controlled using the polling of the graduates, employers and students of the 1<sup>st</sup> level professional higher education program “Real Estate Management”, examination and test results, assessing the study papers and projects, internship reports and qualification papers.

Exam and credit test are the main forms of assessment of program outcomes, which should be taken at the end of each study course. The form of assessment is specified in the description of the certain study course.

Qualification papers are presented publicly, they are assessed by the State Examination Committee established by resolution of RTU Rector, which also comprises the representatives of the Latvian Association of Real Estate Managers and Administrators. The papers are evaluated by the reviewers approved by the Dean of the Faculty of Engineering Economics and Management.

The issues addressed in the qualification paper include current processes in real estate management market, the factors affecting them, resolved problems of real estate management and maintenance, as graduates of the study programs should be able to demonstrate comprehensive and specific knowledge and understanding of real estate management facts, theories, regularities and technologies.

To improve the knowledge and resolve unclear issues all involved academic personnel offer tutorials. The time table of tutorials of each instructor is available on the home pages of Riga Technical University, the Faculty of Engineering Economics and Management and/or the Institute of Building Entrepreneurship and Real Estate Economics, as well as at the appropriate (responsible) organizational units.

The principles of student-centered education are taken into account in the implementation of the whole study process.

### *1. Students' involvement in the study process and content improvement*

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

### *2. Learning outcomes*

The assessment of the study courses of the program and the number of credit points are related to the learning outcomes and the students are informed about these learning outcomes. The lecturers associate the results of the course with the results of the study program, as well as argue the necessity of acquiring the information of this course in order to acquire the profession of house manager.

Exam and credit test are the main forms of assessment of program outcomes, which should be taken at the end of each study course. The form of assessment is specified in the description of the certain study course. The form of examination is defined in the study program. Assessment of learning outcomes is performed according to the Regulation on the Assessment of Learning Outcomes

([https://www.rtu.lv/writable/public\\_files/RTU\\_1\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_1_studiju_rezultatu_vertesanas_nolikums.pdf))

[in

latvian] and the Regulation on Final Examinations at Riga Technical University ([https://www.rtu.lv/writable/public\\_files/RTU\\_nolikums\\_par\\_noslguma\\_prbraudjumiem.pdf](https://www.rtu.lv/writable/public_files/RTU_nolikums_par_noslguma_prbraudjumiem.pdf)) [in latvian]

### *3. Mobility*

Mobility resources are used in the study program to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; A 3-hour lecture “Practical Aspects of Building Construction Business: Latvia and Lithuania” was conducted by Jurga Naimaviciene and Loreta Kanapeckiene from Vilnius Gediminas Technical University (Lithuania) in cooperation with the Latvian company “Transparence” Ltd within the study course “Practical Aspects of Building Construction Business”.

Within the study course “Management of Ecology”, the cycle of lectures “Introduction to management of growth and development. Models of economic growth and their empirical applications. Technological change, sources of income and growth differences across countries. Tools of management of growth and development. Key empirical issues in management of growth and development” was conducted by the visiting lecturer Olha Prokopenko from University of Bielsko-Biala (Poland), thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers.

### *4. Social dimension*

The study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey, which indicates that almost 95% of students work through the studies. Similarly, full-time students have the opportunity to switch to part-time study if necessary, to combine study and work. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

### *5. Teaching and learning methods*

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed, group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other. Study tours and guest lectures are also held regularly. Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype, Whatsapp, MsTeam, Zoom etc.

### *6. Learning environment*

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory and research Laboratory for Building Entrepreneurship and Real Estate with various databases during their research process.

### *7. Development of competences of the academic staff*

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Pedagogical methods, the structure of the study courses and assessment methods are chosen by the responsible instructors in accordance with the curriculum of the study course and program specifics, as well as the needs of students.

Training courses and seminars on the latest teaching and pedagogical methods are organized for

the academic staff, professional advancement through attendance of various courses both at internal Faculty, RTU and international events is also promoted. RTU Centre for Academic Excellence organizes professional advancement events for academic personnel at the University level.

Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods. In the framework of the international ERASMUS + project Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020, the lecturers are involved in the development of new study courses, sharing experience in the use of study methods, materials and programs in European universities.

#### *8. Extra-curricular activities*

The program management supports the student self-government and encourages students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning.

Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. The student scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses are published.

Students have the opportunity to participate in the annual RTU International Scientific Conference.

Student-focused education envisions active involvement of students in lecture activities applying various teaching methods (discussions, practical tasks), which in their turn support equality among students and members of academic staff. Such processes are practiced by the instructors within their study courses, for example, Professor J. Vanags organizes workshops within the study courses "National Economy and Financial Market", "Real Estate Economics", where each student presents their topic, taking on the role of the instructor. Other instructors actively practice team work during practical classes, which helps in developing student team responsibility for the performed activities.

Student learning outcome assessment results are discussed twice a year at the Department of Building Entrepreneurship and Real Estate Economics and Management of the Institute of Civil Construction and Real Estate Economics, they are also summarized and assessed by the program administration; they also provide the framework for further improvement of the study process. Results are also discussed at FEEM Council meetings.

Academic achievements of students of the study program are different. The average assessment of academic achievements of full-time students in the 1<sup>st</sup> year of studies varies in a wide range. This stems from differing level of student background knowledge.

The results of analysis show that in comparison with the previous years, the academic results and student attitude to studies have improved due to the application of the latest innovative dual approaches for enhanced acquisition of the study courses in the study process. In the first year of

studies students mainly undertake general education and field-specific study courses. In the following years of studies, academic achievements have improved.

In academic year 2017/2018 for the first time in the study program history, three graduates of the study program were included into the selection of RTU Golden Fund.

The results of analysis show that in comparison with the previous years, the academic results and student attitude to studies have improved. Apparently, this is also the result of the changes in the academic work styles.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship outside the educational institution is an integral part of the professional programs that students have to complete in accordance with Cabinet Regulation, RTU Senate Decision No.467 "On the Structure of the Second Level Professional Study Programs" as of 29 April 2002, and RTU Senate Resolution No. 626 "The New Edition of the Internship Management Procedure at Riga Technical University" as of 28 January 2019.

The internship is conducted in accordance with the Regulation, the general requirements of which have been elaborated by RTU Senate. The Regulation is available at RTU homepage and ORTUS system.

It is stipulated in the Senate Resolution amended in 2019 on the Internship Management Procedure at RTU that an internship supervisor from the organizational unit helps students to find an internship place. Should any additional assistance be necessary, it is possible to apply to the Career Support and Service Centre, where a career consultant and a project manager help students in finding an internship place and outreach, as well as promote development of career management skills with the help of different activities that can ensure acquisition of positive results during the internship.

Once a year the Career Support and Service Centre organizes RTU Career Day, when students also have an opportunity to meet in person representatives of companies and discuss future prospects.

An additional resource that has been used since 2015 is the home page, where companies are invited to allocate vacant jobs relevant for RTU students (<https://ekarjera.rtu.lv/>) [in latvian]. Students can login with their university user name and follow the up-to-date practices in their field and later monitor future job opportunities.

Additional support in development of practical skills is provided by RTU Development Fund (<https://www.rtu.lv/lv/attistibasfonds>) [in latvian]. Throughout the year, several hundred practical skill training competitions are organized in cooperation with companies, where students can acquire practical skills.

Internship is undertaken according to the Agreement on Internship, which RTU signs with an employer about an internship and a student. The Agreement on Internship stipulates the aim, tasks and the plan of the internship, procedure of internship achievement assessment, as well as responsibilities and liabilities of the parties. Defining the aims and tasks, the introduction to the

management structure and principles of work of an appropriate internship company is added to the internship curriculum. Determination of internship aims and tasks, as well as internship assessment is done involving the representatives of the organization or company that signed the agreement on internship. Committees for public presentation of internship reports are established.

Close cooperation is maintained with companies, banks, organizations, institutions employing graduates of RTU Faculty of Engineering Economics and Management, who help to provide internship places for students.

Two internship periods are planned within the study program. The volume of internship and planning are as follows:

1. INTERNSHIP 16 CP
2. Internship 8 CP
3. Qualifying Practical Placement 8 CP

Student internship places are provided by commercial companies – members of the Latvian Association of Real Estate Managers and Administrators.

The main aim of internship is to provide and to support integration of student theoretical knowledge and practical work in order to assess the opportunities to use the knowledge acquired at the University in practice, as well as enhancement and development of professional skills and competences. During the internship, students get familiarized with the aspects of real estate management in the field of maintenance and management. The largest placement providers are "Rīgas namu Valdnieks", "Daugavpils Housing and Utility Company", AS SEB banka, Apartment Owners' Cooperative "Anniņa 28", Riga Technical University, "CDzP", "Vestabalt" and others.

During the internship, students develop internship reports according to the requirements of the internship program, as well as keep an internship diary. The internship report is drawn up during the internship. It should be submitted to the internship supervisor at the final stage of internship and publicly presented to the Internship Committee established at the Department of Building Entrepreneurship and Real Estate Economics and Management (BEREEM Department) within the terms specified in the semester plan.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Upon completion of the 1st level professional higher education study program, a graduate should be able to display comprehensive and specialized knowledge and understanding of real estate management related facts, theories, regularities and technologies.

Themes of qualification papers reflect the topicalities in the sector of real estate management and innovative digital solutions in the management processes. State Qualification Paper Committees comprise highly qualified industry representatives. Information sources and materials necessary for development of qualification papers are summarized by the students already during the internship while working at the companies.

The study program is improved and updated in the process of its implementation based on labor market research and consultations with employers and practicing specialists. Recommendations of the graduates, students and university academic staff play an essential role in the studying process

improvement. Changes are mainly aimed at promoting the shift of learning styles and are focused on “learning to study” and on the integration of information technologies in decision making in real estate management. Studies are organized so as to include real estate management issues among the topics of study and research papers.

After each public presentation of the qualification papers, the Committee files a report on the qualification paper quality, their relevance for the labor market and average student assessment. During the public presentation of the qualification papers, the minutes are taken, which reflect the questions and the obtained assessment results.

For example, on 6 January 2015, public presentation of the qualification papers within the 1st level professional study program “Real Estate Management” was organized, whereby the State Examination Commission listened to and assessed public presentations of the qualification papers elaborated by five students, which were related to real estate maintenance and security system installation aspects, power supply service, reconstruction plan and management activity plan development in the field of real estate management and maintenance in Latvia. The average grade awarded for qualification paper was 9.

On 5 January 2016, the State Examination Committee listened to and assessed public presentations of the qualification paper elaborated by one student, which was related to organization of residential house maintenance. The student received grade “9” (excellent).

On 10 January 2017, the State Examination Committee listened to and assessed public presentations of the qualification papers elaborated by two students, which were and related to residential house management. The average grade awarded for qualification paper was 8.

In June 2017, the average grade awarded for qualification paper was 7.17.

In June 2018, the average grade awarded for qualification paper was 9.

In 2019, student elaborated his qualification paper and received grade “10” (outstanding).

### Examples of topics for qualification work

Administration and management of historically relevant buildings
Management of the development action plan for the denacionalized home in Riga
Personnel management in company of real estate management
Development plan for the city center building
Residential building comfort provision with engineering communications
Residential apartment house management in Cesu district
Real estate management project
Staircases exterior door security system installation justification for real estate management
Selection of cleaning and gardening equipment in real estate management
Energy service application in apartment house management
House management in Incukalna district

The results of analysis show that the themes of graduation or qualification papers are closely related to the relevant issues in real estate management.



## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

At the end of each semester, RTU Study Department in ORTUS system runs student polling concerning the quality of studies. In addition, discussions and surveys are held among employers and former graduates. Polling results are discussed at the meetings of the ICEREE Council, as well as at the meetings of FEEM Council in case of elections for academic positions.

The procedure for the consideration of student complaints has been elaborated. The grounds for the complaint are evaluated, for many years lecture and practical class observations have been practiced, during which leading members of academic personnel and institute administration observe lectures and draw up an observation minutes. Such lecture observations include observation of the way an instructor involves students in the lectures, how they interact with the audience, and how they employ various materials and opportunities of technical hardware. After lecture observations, possibilities of work improvement are discussed with the instructor.

To receive student feedback about the study process and improve the quality of electronic learning aids posted by the instructors, RTU has implemented student polling system, not later than once per semester conducting regular student surveys and the quality of study curriculum and academic activities of the staff. Questionnaires are anonymous and are not personally linked to any certain student, the obtained results are essential for improvement of the quality of the study process; that is why students can express their views, having conscientiously filled in survey questionnaires.

Depending on the study course, the number of students participating in ORTUS student surveys differs, so the acquired data are analyzed very carefully.

One of the ways to express one's positive or negative view is through a Bilateral application designed by RTU Student Parliament, which allows expressing one's view, having remained anonymous. The application form is available at the Faculty student self-governments, at the Student Parliament or on [www.rtusp.lv](http://www.rtusp.lv). [in latvian]

In the course of the 1st level professional higher education program "Real Estate Management" feedback about its quality is regularly received from employers, students and graduates. The quality of studies is evaluated considering the obtained student survey results, credit test and exam grades, methodological reports.

The study program educates and trains high level graduates, 6 graduates continue their studies in the professional Bachelor study program "Real Estate Management".

Every year polling of program graduates takes place. Survey results display positive aspects and improvement opportunities of the program. The study program, its curriculum, practical experience and the acquired knowledge are evaluated. Graduate surveys take place in January and June, depending on the time of final examinations within the program.

In academic year 2013/2014, questionnaires were filled in by 6 graduates. Survey results are summarized in the table below.

### **Student survey results in academic year 2013/2014, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	100%	0	0	0	0	0
Satisfied with the acquired theoretical knowledge	60%	30%	10%	0	0	0
Satisfied with the acquired practical skills	65%	30%	5%	0	0	0
Satisfied with the lecture rooms used for studies	7%	30%	0	0	0	0
The majority of academic personnel posted materials in the e-learning environment	55%	23%	15%	5%	0	2%

In academic year 2014/2015, 8 out of 12 graduates of the study program filled in the questionnaires. The survey results are summarized in the table below.

**Student survey results in academic year 2014/2015, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	90%	5%	5%	0	0	0
Satisfied with the acquired theoretical knowledge	70%	30%	0	0	0	0
Satisfied with the acquired practical skills	60%	40%	0	0	0	0
Satisfied with the lecture rooms used for studies	65%	35%	0	0	0	0

The majority of academic personnel posted materials in the e-learning environment	55%	23%	20%	0	0	2%
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The graduates mentioned that it is mandatory to more actively develop practical skills and the study process must be more intense, they would like to have more on-campus classes and study tours, as well as practical classes. In their recommendations for program improvement, the students have mentioned:

- to organize more practical classes, necessity to analyze of real-life case studies;
- to review curriculum of the study courses, as information is duplicated across different courses;
- to more actively involve the people, who perform real estate management on the daily basis at some company in Latvia and abroad, in the study process;
- to organize study tours to various companies more frequently to develop understanding of the theoretical and practical knowledge to be acquired in the coming academic years.

In academic year 2015/2016, 8 out of 12 graduates of the study program filled in the questionnaires. The survey results are summarized in the table below.

**Student survey results in academic year 2015/2016, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	80%	10%	0	0	0	10%
Satisfied with the acquired theoretical knowledge	67%	22%	11%	0	0	0
Satisfied with the acquired practical skills	33%	33%	23%	11%	0	0
Satisfied with the lecture rooms used for studies	80%	15%	5%	0	0	0
The majority of academic personnel posted materials in the e-learning environment	77%	23%	0	0	0	0

In academic year 2016/2017, 6 out of 7 graduates of the study program filled in the questionnaires. The survey results are summarized in the table below.

### Student survey results in academic year 2016/2017, %

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	100%	0	0	0	0	0
2.	Satisfied with the acquired theoretical knowledge	60%	40%	0	0	0	0
3.	Satisfied with the acquired practical skills	60%	40%	0	0	0	0
4.	Satisfied with the lecture rooms used for studies	60%	40%	0	0	0	0
5.	The majority of academic personnel posted materials in the e-learning environment	60%	20%	20%	0	0	0

On the whole, students evaluated the theoretical and practical skills acquired in the course of studies positively. Still there are students, who are not satisfied with their studies. Comprehensive analysis shows that these students are not interested in the awarded qualification or professional activities.

The graduates mentioned that it is mandatory to more actively develop practical skills and the study process must be more intense, they would like to have more on-campus classes and study tours, as well as practical classes. their recommendations for program improvement, the students have mentioned:

- to review the curriculum of the study courses, as information is duplicated across different courses;
- to integrate theory and practice more actively;
- students are not satisfied with some courses in the program, such as Statistics, Computer Science (basic course), foreign languages;
- more practical calculations during the classes.

In academic year 2017/2018, 8 out of 12 graduates of the study program filled in the questionnaires. The survey results are summarized in the table below.

### Student survey results in academic year 2017/2018, %

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	100%	0	0	0	0	0
2.	Satisfied with the acquired theoretical knowledge	65%	35%	0	0	0	0
3.	Satisfied with the acquired practical skills	65%	35%	0	0	0	0
4.	Satisfied with the lecture rooms used for studies	65%	35%	0	0	0	0
5.	The majority of academic personnel posted materials in the e-learning environment	60%	25%	15%	0	0	0

On the whole, students evaluate the theoretical and practical skills acquired in the course of studies positively. Still there are students, who are not satisfied with the studies. Comprehensive analysis shows that these students are not interested in the awarded qualification or professional activities.

The graduates mentioned that it is mandatory to more actively develop practical skills and the study process must be more intense, they would like to have more on-campus classes and study tours, as well as practical classes.

In their recommendations for study program improvement students have mentioned:

- to review the curriculum of the study courses, as information is duplicated across different courses
- to conduct more practical calculations during the classes to improve theoretical knowledge.

The evaluation of the program, study process, acquired knowledge and practical skills by the program graduates demonstrates their willingness to improve a different aspect every year, which calls for reviewing the curriculum of the study program and its implementation, which is regularly performed. All survey results are used by the program administration for improvement of the study process.

In academic year 2018/2019, 3 out of 7 graduates of the study program filled in the questionnaires.

The survey results are summarized in the table below.

**Student survey results in academic year 2018/2019, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	100%	0	0	0	0	0
2.	Satisfied with the acquired theoretical knowledge	75%	35%	0	0	0	0
3.	Satisfied with the acquired practical skills	65%	0	35%	0	0	0
4.	Satisfied with the lecture rooms used for studies	100%	0	0	0	0	0
5.	The majority of academic personnel posted materials in the e-learning environment	85%	0	15%	0	0	0

On the whole, students evaluate the theoretical and practical skills acquired in the course of studies positively. The graduates mentioned that it is mandatory to more actively develop practical skills and the study process must be more intense, they would like to have more on-campus classes and study tours, as well as practical classes.

In their recommendations for program improvement the students have mentioned:

- information is duplicated across different study courses;
- students are not satisfied with the presence of some study courses in the program, such as economic statistics, Computer Science (basic course), large volume of study courses related to economic issues.
- students would like to know their lecture plans at least one semester in advance.

Taking into account the results of the survey and reviewing the study program and the existing study courses and their content, study courses that duplicate the content of other study courses, such as Technical Drawing, were excluded from the study program, as its content is included in the content of Building and Structures Technical Condition Assessment (study project), therefore there

is no need for a separate study course.

The content of the study course Administrative Law is integrated in the study course Legal Basis of Real Estate and Movable Property and Labor Protection.

There have been student complaints about specific lecturers of study courses, whose teaching methods do not meet modern requirements. Consequently, negotiations are held with these lecturers, in case of repeated complaints, the involvement of specific lecturers in the implementation of study courses is stopped.

Following the recommendations of employers, the study course Legal Basics of Real Estate and Movable Property deals with issues related to mediation. Following the recommendations of employers, specialists in the field are invited to implement study courses.

During the internship, students supplement their practical knowledge in companies on site.

The study program administration monitors not only the achievements of the students at the study program at the university, but also student activities outside RTU. Thus, for instance, in the spring semester of academic year 2017/2018, the graduate Elžbeta Krumpļevska became a prize winner in numerous international figure skating competitions. Three years ago, Elžbeta moved from Daugavpils to Riga, where together with Aleksandr Rjabinin (her coach from Saint Petersburg, Russia) she opened the International figure skating school, which is based both in Riga and Moscow (Russia). In June, 2018 Elžbeta Krumpļevska presented her qualification paper to obtain the qualification of a real estate manager at Riga Technical University.

The quality of studies is evaluated considering the obtained student survey results, credit test and exam grades, methodological reports.

Within the study program “Real Estate Management” relations among students, academic staff and other employees are based on the principles of cooperation, respect and responsibility. Principles of democracy are integrated in program management and decision making. Students are involved in the process of decision making.

In case of conflict situations, students usually address the study program instructors, the Office of Recordkeeping and the study program administration. So far, all problems have been resolved through discussions. Furthermore, students can talk to or submit a written complaint to the Faculty Dean or Deputy Dean for Academic Affairs. Conflict aversion, problem solving and reconciliation mechanisms have been established within the study program “Real Estate Management”.

Administration of the study program “Real Estate Management” follows the principles of democracy and clearly determines the relations among administrative staff, academic personnel and students.

Student representatives participate in work of ICEREE Council.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Any RTU student can go on Erasmus + mobility. Application for mobility takes place online, on the portal [outgoingexchange.rtu.lv](http://outgoingexchange.rtu.lv). Students are approved for the scholarship based on their weighted average mark and English language test results.

Before submitting the application, the student:

1. Get acquainted with the information about Erasmus + mobility on the website.
2. Attends an informative seminar organized by the International Mobility Department or RTU Student Parliament.
3. Researches the list of «Erasmus + partner higher education program countries», looking for opportunities to acquire study courses corresponding to your RTU study program at the required study level, in a foreign language known to you.
4. Exploration potential mobility national living conditions and the expected mobility costs.

Information events take place in September and February, all interested parties are invited by e-mail to take part in information events on Erasmus + opportunities, which explain in detail the various issues related to the Erasmus + scholarship competition, experience from previous years and aspects that need special attention when planning mobility. Information on the time and place of informative events is available at [outgoingexchange.rtu.lv](http://outgoingexchange.rtu.lv).

Applications for Erasmus + study mobility and traineeship mobility are separate. If there is a wish to go on study mobility in the next semester and later also on internship mobility, two separate applications must be submitted to the [outgoingexchange.rtu.lv](http://outgoingexchange.rtu.lv) platform.

Using the list of «Erasmus + partner higher education institutions in the program countries», it is possible to find suitable partner higher education institutions, which must be indicated by filling in the online application for study mobility on the [outgoingexchange.rtu.lv](http://outgoingexchange.rtu.lv) platform. At each university, it is mentioned which field of study and study level the offer of this university is meant for.

The student's RTU study courses must fully or partially coincide with the study courses offered by the selected partner university. When looking at the information on the website of a foreign university, make sure that the studies are conducted in a foreign language known to the students, as well as the offered courses will be available during the period of Erasmus + mobility (autumn / winter or spring / summer semester).

When submitting an application for study mobility online on the platform [outgoingexchange.rtu.lv](http://outgoingexchange.rtu.lv), the student selects a maximum of three higher education institutions as potential host higher education institutions. Students can compete with each other if several students have applied to the same university. At the end of the selection, the student will have to approve one of the chosen priorities as the final choice for study mobility.

In Level 1 professional study programs, mobility is not popular due to the length of the study program, however, there are students who, for example, carry out internships in foreign companies. Thus, for instance, the 2nd year student will undertake his internship of 8 CP in the spring semester of academic year 2019/2020 at the Real Estate Department of the company "IKEA" in Great Britain.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the**



**respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

RTU financing from the general state budget is formed by the basic financing of studies in accordance with the list of the study programs and the number of students, which covers utility fees, taxes, infrastructure maintenance costs (including data input in the Register of students and graduates), purchase of inventories and equipment, and remuneration, as well as financing of research activities.

The number of seats is approved after negotiations with the Ministry of Education and Science. Basic financing of studies from the state budget is awarded to full-time studies. The amount of basic financing of studies is defined based on the number of state budget-funded seats at RTU, as well as the basic costs of a seat set by the state and thematic education field study cost coefficients.

RTU financing for state budget-funded seats in the appropriate academic year is allocated according to the procedure set in RTU Senate Resolution “On the Methodology for Allocation and Application of Basic Budget, Performance-Based Funding and Tuition Fees to RTU Units” in the appropriate academic year. This methodology is reviewed and approved in a new edition every year, taking into account the necessary changes.

RTU has decentralized budgeting and each organizational unit plans its own budget. Broadly speaking, budget is an income and expenditure plan for a certain period of time, work, activity or function. RTU incomes and expenditures are managed either according to the principles approved by the Senate or as determined by the authorized Vice-Rector for Finance.

According to the Methodology, financing to organizational units is distributed either for a financial or budget year or immediately after financing has been received. Financial or budget year for RTU organizational units lasts from October to September of the next year, calculation and allocation of financing is made for this period of time:

- Subsidy or basic financing (state budget-funded seats) is allocated as a monthly limit – an organizational unit is monthly granted 1/12 of the financing calculated for a year;
- Fee-based student financing (tuition fees, including the payment for the settlement of academic arrears) is allocated twice a year (in October and in April) as a monthly limit – an organizational unit is monthly granted 1/6 of the calculated semester financing;
- Performance-based financing (research support funding) is granted as a monthly limit, an organizational unit is monthly granted 1/12 of the financing calculated for a year;
- Research base financing (research support funding) is granted as a monthly limit – an organizational unit is monthly granted 1/12 of the financing calculated for a year.

Analyzing the general procedures of financing study programs at RTU it may be noticed that in case of basic budget and financing received from local fee-paying students for a long time have been defined according to the basic principles defined by the state. In the process of definition of the volume of financing both thematic education field study cost coefficients and study cost coefficient values according to the study program level are taken into account, as well as the number of students at the study program and at the respective study courses therein.

As mentioned above, using thematic education field study cost coefficients it is possible to define the volume of financing necessary for a certain study program and study course. RTU Senate has

ruled that further thematic education field study cost coefficients will be applied individually to each study course within the study program, thus providing even more relevant volume of financing for implementation of study courses within the study program. To integrate this system, an expert committee was established by the Order of the Vice-Rector for Academic Affairs, which defined the thematic field for each study course.

Actual costs of the study program “Real Estate Management” have been as follows:

	Subsidy, EUR	Tuition fee by local students, EUR	Tuition fee by foreign students, EUR	Total funding for the program, EUR	Cost of state budget funded seat, EUR
2013/2014	6057.00	19249.00	0.00	25306.00	2280.00
2014/2015	6313.18	21225.48	0.00	27538.66	2279.62
2015/2016	9193.69	19628.56	0.00	28822.25	2051.66
2016/2017	11294.94	29617.82	0.00	40912.76	2051.66
2017/2018	5383.42	35745.74	0.00	41129.16	2144.33
2018/2019	5609.01	37787.69	0.00	43396.70	2244.65

Financial resources of the study program “Real Estate Management” are sufficient for implementation of the study program and their use is regularly controlled by both the administration and the Office of RTU Vice-Rector for Finance.

The study process is fully provided with the latest learning aids, which students can borrow from RTU Central Library either using study book circulation tickets or using the aids throughout the whole period of studies. RTU students and academic personnel have access to a large and modern RTU Scientific Library (Kipsala, 5 Paula Valdena Street), where they can use both all kinds of educational literature, electronic subscription databases, as well as short-term trial databases. Working hours of the reading rooms of the library for RTU students work on 24/7 basis, because round-the-clock reading rooms of RTU Scientific Library are the place, where students can study late at night, outside the Library or Faculty working hours.

Students can use the services offered by RTU Library (<http://www.zb.rtu.lv/>). They have also resource rooms at their disposal, where they can get familiarized with the latest periodical publications, statistical materials, books, conference proceedings concerning the industry’s most relevant updates. FEEM has established a free access library where students can borrow a publication of interest, having returned it back afterwards.

To intensify the study process, students have constant access to the joint RTU study support system “ORTUS”. For the moment “ORTUS” provides students with:

- Lecture handouts and presentations;
- Automatic video records of classes;
- Study process related regulatory documents and amendments thereto;
- Remote authorization of students in commercial electronic information sources (Databases);
- Electronic processing of tests and home works;
- Information on student academic performance;

- Information on student finance, with an option of electronic invoicing;
- Online check in/check out for the study courses in the following semester.

To supplement the range of sources of information and to update the accessible scope of publications in the library, the study program administration has purchased some new publications. The table below summarizes the information about the spent amounts and the number of library copies.

Year	EUR	Number of copies
2018	500.51	8
2017	969.94	13
2016	1258.98	4
2015	1218.88	9
2014	1437.44	7
2013	1362.18	37

To provide the study program with library resources the following publications have been purchased:

- Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā : zinātniskā monogrāfija [Management System of Real Estate Market Development in Latvia: scientific monograph] / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible for the issue Natālija Čina; editor Lilita Vīksna ; author of the cover Sanda Geipele]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p.
- Kopā un atsevišķi: daudzdzīvokļu namu arhitektūra Latvijas ekonomiskajā, politiskajā un sociālajā ainavā [Together and Separately: the Architecture of Multi-apartment Buildings in Latvia's Economic, Political and Social Landscape] / edited by Matīss Groskaufmanis and Evelīna Ozola; drawings: Ludo Groen, Matīss Groskaufmanis, Evelīna Ozola; translations: Vilis Kasims, Jūle Mare Rozīte; photos: Reinis Hofmanis; comics: Sander Ettema. Riga: FOLD in cooperation with the New Theatre Institute of Latvia, [2019] 239 p.
- Nekustamais īpašums Latvijā: 1991-2012 [Real Estate in Latvia: 1991-2012] / [Aivars Kļavis ... [et al]]. Riga: Latio, 2013. 384 p.
- Nekustamais īpašums un ekonomikas attīstība: zinātnes un prakses sinerģija: zinātniskā monogrāfija [Real Estate and Economic Development: Synergy Between Science and Practice: scientific monograph] / edited by Sanda Geipele and Raja Kočanova; reviewers: Tālav Jundzis, Namejs Zeltniš, Maira Leščevica; literary editor Inga Skuja; cover design: Paula Lore; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2019. 239 p.
- Pilsētu loma Latvijas tautsaimniecībā: 2014. gada 16. aprīļa zinātniskā semināra materiāli [Role of Cities in National Economy of Latvia: materials of the scientific seminar of 16 April

- 2014] / [literary editor Silvija Minkevica; cover design Jekaterina Ribajeva] ; Riga Technical University. Faculty of Engineering Economics and Management. Department of the Territorial Development, Management and Urban Economics. Riga: RTU Press, 2014. 79 p.
- Praude, Valērijs. Teritoriālais mārketingš: (teorija un prakse) [Territorial Marketing: (Theory and Practice)] / Valērijs Praude, Jekaterina Vozņuka; Scientific Research Institute for Social and Humanitarian Issues. Baltic International Academy. Riga: Scientific Research Institute for Social and Humanitarian Issues: Baltic International Academy, 2013. 533 p.
  - Ruža, Oksana. Dzīvojamā nekustamā īpašuma analīze un vērtēšana reģionālajā aspektā: promocijas darba kopsavilkums ekonomikas doktora (dr.oec.) zinātniskā grāda iegūšanai [Analysis and Estimation of Residential Real Estate in the Regional Aspect: summary of the thesis for obtaining the doctoral degree in economics (Dr.oec.)] / Oksana Ruža; [scientific advisor of the thesis: Viktors Voronovs]; Daugavpils University. Department of Economics. Daugavpils: Daugavpils University Academic Publishing House "Saule", 2013. 82 p.
  - Viesturs, Jānis. Starptautiskie darījumi ar nekustamo īpašumu: mācību grāmata [Real Estate International Transactions: textbook] / Jānis Viesturs, Ineta Geipele; scientific editor Ineta Geipele; reviewers: Aleksejs Loskutovs, Roberts Škapars, Kristīne Jarve; responsible for the issue Anita Vēciņa; editor Inga Skuja; cover design: Baiba Lazdiņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2017. 219 p.
  - Virsnieks, Andris. Kā ieguldīt nekustamajā īpašumā : zema riska iespēja, kā iegūt ilgtermiņa naudas plūsmu [How to Invest in Real Estate: Low-risk Chance of Getting a Long-term Cash Flow]/ Andris Virsnieks; translated from English by Andžela Berķe. Riga: Jumava, 2014. 223 [1] p.
  - Žavaronkova, Ilona. Nekustamā īpašuma nodokļa parādu administrēšana [Real Estate Tax Debt Administration] / Ilona Žavaronkova. Saarbrücken: GlobeEdit, 2015. 159 p.
  - Audretsch, David B. Everything in its Place: Entrepreneurship and the Strategic Management of Cities, Regions, and States / by David B. Audretsch. New York, NY: Oxford University Press, 2015. xi, 163 p.
  - Baltic Journal of Real Estate Economics and Construction Management: scientific journal of Riga Technical University / [Riga Technical University. Institute of the Civil Engineering and Real Estate Economics. Faculty of Engineering Economics and Management]. 1 (2013), Riga : RTU Press, 2013- vol.
  - Brueggeman, William B. Real Estate Finance and Investments / William B. Brueggeman, Ph.D., Jeffrey D. Fisher, Ph.D. 15th edition. New York, NY: McGraw-Hill Education, [2016] xviii, 807 p.
  - Dalal-Clayton, D. B. Sustainability Appraisal: A Sourcebook and Reference Guide to International Experience / Barry Dalal-Clayton and Barry Sadler with contributions from James Baines ... [et al.]. London; New York: Routledge, ©2014. xlii, 810 p.
  - Dawson, Catherine. The Complete Guide to Property Development for the Small Investor / Catherine Dawson. 3rd ed., Philadelphia: Kogan Page Limited, 2013. xviii, 270 p.
  - Fink, Matthias. Community-Based Entrepreneurship and Rural Development: Creating Favorable Conditions for Small Businesses in Central Europe / by Matthias Fink, Stephan Loidl, and Richard Lang. New York, NY: Routledge, 2014. xii, 246 p.
  - Hamilton, Kyrie. Land use management / edited by Kyrie Hamilton. New York: Syrawood, 2018. vii, 252 p.
  - Havard, Timothy. Financial Feasibility Studies for Property Development: Theory and Practice / Tim Havard. Abingdon, Oxon: Routledge, ©2014. xviii, 270 p.
  - Haynes, Barry P. Corporate Real Estate Asset Management: Strategy and Implementation / Barry P. Haynes and Nick Nunnington. London; New York: Routledge, 2014. xiii, 298 p.
  - Hennessey, Brian. The Due Diligence Handbook for Commercial Real Estate: A Proven System

to Save Time Money, Headaches and Create Value when Buying Commercial Real Estate / by Brian Hennessey. [USA]: by Brian Hennessey, 2016. 81, [1] p.

- International Approaches to Real Estate Development / edited by Graham Squires and Erwin Heurkens. London; New York: Routledge, Taylor & Francis Group, ©2015. xiv, 238 p.
- Metternicht, Graciela. Land Use and Spatial Planning: Enabling Sustainable Management of Land Resources / Graciela Metternicht. Cham, Switzerland: Springer, 2018. xvii, 116 p.
- Nöllke, Matthias. Immobilien erwerben / Matthias Nöllke. 8. Aufl. Freiburg : Haufe, c2013. 126 p.
- Nolon, Sean. Land in conflict: Managing and Resolving Land Use Disputes / Sean Nolon, Ona Ferguson, and Pat Field. Cambridge, Massachusetts: Lincoln Institute of Land Policy, c2013. xv, 188 p.
- Real Estate Concepts: A Handbook / edited by Ernie Jowsey with contributions from staff at Northumbria University. New York, NY: Routledge, 2015. xxvi, 494 p.
- Shapiro, Eric F. Modern Methods of Valuation / Eric Shapiro, David Mackmin and Gary Sams. 11th ed. Abingdon, Oxon; New York, NY: Routledge, 2013. xxxiv, 516 p.
- Sirgy, M. Joseph. Real Estate Marketing: Strategy, Personal Selling, Negotiation, Management, and Ethics / M. Joseph Sirgy. Abingdon, Oxon: Routledge, 2014. xii, 306 p.
- Ардзинов, В. Д. Ценообразование в строительстве и оценка недвижимости (Pricing in Construction and Real Property Valuation) / В.Д. Ардзинов, В.Т. Александров. Москва [и др.]: Питер, 2013. 384 p.
- Дурнев, А. Инвестирование в недвижимость: как заработать без стартового капитала на чужих деньгах (Investment in Real Property: How to Earn With No Seed Capital, on Other People's Money) / А. Дурнев, А. Бородин, Е. Малик. Ростов-на-Дону: Феникс, 2013. 157, [1] p.

The resource base and facilities of the study program are provided by RTU and FEEM facilities and infrastructure. FEEM facilities and, consequently, the resources of the study field are regularly updated. The lecture rooms used for the needs of the study program are equipped with all necessary audio and video hardware. There is necessary equipment for video lectures, computer classes, copying machines, etc. The academic personnel and administration draw great attention to effective modes of the lecture room usage and enhancement of the study program quality. Advanced IT technologies are used during the classes: academic staff use electronic teaching tools for visual presentation of lecture curricula (PowerPoint presentations, audio-video materials, video materials, etc.), video lectures are being gradually integrated, also e-learning platform is used. Computer classes are used not only in solution of practical tasks, which allow students to acquire the latest IT technologies, but also in promotion of research through application of different data bases.

The ICEREE has been implementing the study program at FEEM, it has established the research Laboratory for Building Entrepreneurship and Real Estate, where students can use laboratory equipment and software within different study courses, for example, "Evaluation of Technical State of Buildings and Structures", "Service Lines of Houses and Buildings" or "Energy Efficiency in House and Building Management".

The following units can be listed as the examples:

- ICEREE System dynamics simulation unit: Vensim Simulation Academic DSS, Vensim Simulation Professional, Microsoft SQL 2008;
- ICEREE Situation modelling unit: General algebraic Modelling System, Windows Server 2008 R2, server, power unit;
- ICEREE Environmental, territorial, infrastructure development modelling unit: video communication system, presentation equipment, Map Info (software), JS Latvija (software);

- ICEREE Real estate management and development unit: Realty Ware Professional (software), NamZinis (software), NamuBoss, Darbu Boss (software), AutoCad (software);
- ICEREE in cooperation with the Department of Geomatics of the Institute of Mechanical Engineering of FCE: drone - FlyTop Unmanned Aerial Vehicle FLYNOVEX with control unit, six accumulating batteries, accumulating battery charging device, high resolution photo camera and thermocamera "FLIR VUE PRO";
- ICEREE Building microclimate, energy efficiency monitoring and modelling unit: software, extension module, air flow and temperature sensor with display, apartment comfort (ceiling/floor) and outdoor temperature sensor, humidity sensors, humidity sensors with display, Co2 and temperature sensors, pressure sensor with display, installation materials, recovery ventilation set, internet routers, installation materials, thermography cameras, installation materials, camera software, noise (sound level) meter (portable), air quality meter, oxygen meter, air flow meter, light meter (luxmeter), pressure sensor, air flow rate meter, conductivity meter, water tester, oxygen concentration meter, PH meter, humidity meter, soil moisture meter, digital temperature sensor, hygrometer;
- ICEREE Meteorological Center with software – an aerial with the software.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Doctors of sciences and lecturers, or highly qualified industry experts with appropriate work experience, whose characteristics are listed in personal curriculum vitae, are involved in the implementation of the 1<sup>st</sup> level professional higher education program "Real Estate Management". The list of members of academic staff and their CVs are enclosed herewith.

The members of academic staff meet the requirements for the study course delivery. It may be attested both by their characteristics and CVs, as well as by their scientific and methodological research, participation in international, RTU and FEEM scientific and methodological conferences.

#### **Characteristics of the Academic Personnel**

<b>No.</b>	<b>Parameters</b>	<b>Number</b>	<b>Ratio, %</b>
1.	Job positions:		
	Professors	4	14.81

	Associate Professors	8	29.64
	Assistant Professors	9	33.33
	Assistant Professors at professional programs	1	3.70
	Lecturers	1	3.70
	Assistants	2	7.41
	Researchers	2	7.41
	<b>Total:</b>	<b>27</b>	<b>100</b>
2.	Degrees:		
	Doctors of Sciences	20	74.08
	Masters	6	22.22
	Other (dipl.ing.)	1	3.70
	<b>Total:</b>	<b>27</b>	<b>100</b>
3.	By age:		
	under 30	3	11.12
	31 - 40	4	14.81
	41 - 50	12	44.45
	51 - 60	4	14.81
	over 60	4	14.81
	<b>Total:</b>	<b>26</b>	<b>100</b>

Overall, the data demonstrate that qualification of the academic personnel is sufficient to ensure the quality of the study courses. In the reporting period, the number of academic personnel, who obtained PhD degree in the mentioned period, has increased, thus, for example, the study program employs Associate Professors G. Actiņa and S. Geipele, Assistant Professors L. Kauškale, K. Fedotova, etc. 74.08% of academic personnel working at the study program hold a PhD degree. A number of lecturers work in parallel exactly in real estate sector, thus their hands-on skills and competence are transferred to the study program.

Analysis of the age structure demonstrates that the number of university instructors above 60 years old has decreased, i.e. at the moment they make 14.81% of the total number of the academic personnel. The number of academic personnel aged 41-50 years old has increased, i.e. it makes 44.452 % of the total number of instructors. Administration of the study program is working towards involvement of post-graduate students in the study program. At the moment they are 6, which makes 22.22% of the total number of academic staff.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

All members of academic staff involved in the study program advance their professional competence according to the requirements of the study program and regulatory enactments. Qualification of the academic staff involved in the study program meets the requirements of the study program and regulatory enactments.

The study program involves academic personnel elected in academic positions at RTU, visiting lecturers, as well as post-graduate students.

Due to the fact that this is a professional study program, in parallel to the academic personnel, industry experts are also involved, for instance, visiting lecturers from different Latvian companies regularly take part in the study process. Industry experts are involved in the implementation of certain study courses together with the academic personnel, thus, for instance, the practical part of the study course “Financial Accounting of the Property” was delivered by the certified real estate tax counselor Mg.sc.oec. Olga Zadorožanaja from the audit agency Grafa Ltd. and a CMMI 3 certified project management auditor MBA Ģirts Zariņš took part in the implementation of the study course “Commercial Calculus in Property Management”.

Within the study course “Law on construction and rules on construction”, the cycle of lectures on FIDIC requirements was delivered by a representative of “Jurisconsaltus” Ltd. - J.Uzulēns.

The academic personnel are involved in implementation of international scientific projects, which allow integrating the acquired project results into the study process to achieve the set aims and learning outcomes, for example:

1. ESF co-financed project “Development of industry classification system and improvement of efficiency and quality of vocational education” (Agreement No 2010/0274/1DP/1.2.1.1.1/10/IPIA/VIAA/001)”. Civil Engineering Expert Board.
1. “Coast for us” (Coast4us): CB627. Interreg Central Baltic Program 2014-2020. 01.01.2018 –30.09.2020. [http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en\\_](http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en_)
2. Sustainable Public Buildings Designed and Costructed in Wood (Pub-Wood). ERASMUS+; KA2- Cooperation of innovation and the exchange of good practices; KA203 – Strategic Partnerships for higher education. No 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. <http://buni.rtu.lv/erasmus/?lang=en>
3. A values-led planning approach for sustainable land use and development. Activity 1.1.1.2 “Post-doctoral research aid” of the specific aid objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and employment” (No. 1.1.1.2/VIAA/1/16/161). 2017-2020. <http://buni.rtu.lv/eraf/?lang=en>
4. Sociological survey for the needs of the project “The Assessment of Climate Impact,



Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia (sustainable development of multi-apartment buildings in Riga)". L8237: Procurement No RPAB2015/3. Commissioner's agreement No RPAB-16-8-lī. Contractor's agreement No 03000-3.12/16/17/ "The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia (sustainable development of multi-apartment buildings in Riga)": European Economic Area project No 2/EEZLV02/14/GS/007. 2016 Jan.-2016 May.

5. Development of multifunctional nanocoatings for protection of constructive parts of aviation and space equipment. ERDF: activity 1.1.1.2 "Attraction of human resources to science" of additional measure 1.1.1 "Development of scientific and research potential" of additional priority 1.1 "Higher education and science" of the operational program "Human resources employment" of the second stage of Riga Technical University project. 2013 – 2015 <http://buni.rtu.lv/esf/?lang=en>
7. Establishment of the national significance research center for production of energy and environmental resources, and technology of sustainable use (including the development of Centre for Transport and Mechanical Engineering. ERDF: within the framework of the operational program "Entrepreneurship and Innovation" 2007 – 2013; sub-activity 2.1.1.3.1 "Development of scientific infrastructure" of activity 2.1.1.3 "Development of scientific and research infrastructure" of measure 2.1.1 "Science, research and development" of priority 2.1 "Science and Innovation": Agreement No 2011/0060/2DP/2.1.1.3.1./11/IPIA/VIAA/007. <http://buni.rtu.lv/laboratory/?lang=en>
1. Deutsche Bundesstiftung Umwelt (DBU) Scholarship Exchange Program "MOE Ausstauschstipendiumprogramm. Scholarship Exchange Program with CEE countries" for conducting research in Germany. [http://buni.rtu.lv/2016/11/24/linda-kuskale/https://www.dbu.de/611ibook80262\\_37715\\_2510.html](http://buni.rtu.lv/2016/11/24/linda-kuskale/https://www.dbu.de/611ibook80262_37715_2510.html)
2. Evaluation Techniques for Sustainable Management of Land Use. Research Highlights and Plans. Projects funded by the Baltic Sea Unit of the Swedish institute for the research conducted within the Baltic Sea Region Network. 21.12.2015.–30.06.2016. <http://buni.rtu.lv/projekti/>

The following members of academic staff are involved in the implementation of the study program:

Ineta Geipele, Dr.oec., RTU Professor, Dipl.ing., acquired and developed her professional competence and values at different universities in Germany, Austria, Denmark and England, which she currently integrates in the studies, teaching methodology and scientific research. Research interests of Professor Ineta Geipele lie in such fields as the issues of sustainable development in the real estate market, real estate management, building construction, effective land use management, institutional economics and social management both at the national and international level. Professor Ineta Geipele is an expert of social sciences at the Latvian Council of Science in such fields as Economics and Entrepreneurship; Social and Economic Geography and other social sciences, including generic fields of social sciences. Professor I. Geipele is the author and co-author of over 300 scientific publications, including 10 books, at the moment she is heading Projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020. In parallel to her main activities she works as a real estate consultant at "Ādažu

namsaimnieks" Ltd., and at the Guild of Latvian House Managers. Qualification of Professor Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Real Estate Management" and "Qualification Paper".

Jānis Vanags, Dr.oec., Dipl.ing., RTU Professor. Professor's scientific and academic interests lie in the Latvian national economy, engineering economics, construction and house management and real estate management and real estate evaluation, economics of real estate, microeconomic and macroeconomic processes, sustainable development. Professor J. Vanags is the author of numerous scientific publications, including 5 books, and the co-author of the monograph "Financing Models for Housing Fund Renovation in Latvia" and "Socio-Economic Aspects of the Interaction of Urban and Regional Development". In parallel to his work at the University, he works as a consultant for "Consalis" Ltd. Qualification of Professor Vanags meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "National Economy and Financial Market", "Real Estate Economics" and "Investments in Real Estate".

Tatjana Tambovceva, Dr.oec, Dipl.ing., RTU Professor, an expert of social sciences in the field of Economics and Entrepreneurship at the Latvian Council of Science. Her research and academic interests lie in green management, management of building construction projects, sustainable development. Professor Tamboceva regularly advances her professional qualifications by taking part in ERASMUS mobility program. Professor Tambovceva is the author of numerous scientific publications, co-author of books and monographs. Qualification of Professor Tambovceva meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study course "Project Management of the Civil Construction Business and Real Estate Management".

Sanda Geipele, Dr.oec., Associate Professor, an expert of social sciences in the fields of Economics and Entrepreneurship at the Latvian Council of Science. She acquired her work experience both working in private companies and public institutions, which includes real estate tax management at the Municipal Revenue Department of Riga City Council. Her scientific interests lie in development of real estate market sustainability, resource management, building construction, including land use management and institutional economics. She is the author and co-author of over 60 scientific publications, she is also the author of the scientific monograph "Management System for Real Estate Market Development in Latvia" and the co-author of the monographs "Real Estate and Economic Development: Synergy of Science and Practice", "Financing Models for Housing Fund Renovation in Latvia" and "Socio-Economic Aspects of the Interaction of Urban and Regional Development". At the moment, Assoc. Prof. Geipele is the project manager in INTERREG CB project "Coast4us" (01.01.2018 – 31.12.2020), and in two INTERREG EU projects "OptiWaMag: Optimization of waste management in urban spaces and in households" (01.08.2019 – 31.01.2023) and "PROGRESS: PROMoting the Governance of Regional Ecosystem ServiceS" (01.08.2019 – 31.07.2023). Qualification of Assoc. Prof. Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Property and Taxes".

Gita Actiņa, Dr.oec., Associate Professor. Her scientific interests lie in sustainable development issues, development of energy saving process management systems, building construction and energy, including entrepreneurship and real estate finance. She is the author and co-author of numerous publications. In parallel to her work at RTU, she works at the World Energy Council. Qualification of Assoc. prof. Actiņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Financial Accounting of the Property", "Economical Aspects of Real

Estate Transactions” and “The Real Estate: Entrepreneurship and Planning”.

Raja Kočanova, Dr.sc.admin., Assistant Professor. Her scientific and academic interests lie in the areas of strategic business management, sustainability of real estate market development, building construction sector. R. Kočanova is the author and co-author of over 20 scientific publications, and the co-author of the monograph “The System of Strategic Management for Sustainable Development of Organizations” and “Real Estate and Economic Development: Synergy of Science and Practice”. She regularly advances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the Project “A Values-Led Planning Approach for Sustainable Land Use and Development. Activity 1.1.1.2 “Post-doctoral research aid” of the specific support objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and Employment” (No 1.1.1.2/VIAA/1/16/161). 2017-2020. Qualification of Associate Professor Kočanova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Practical Aspects Building Construction Business”, “Evaluation of Technical State of Buildings and Structures (study project)”.

Kristīne Fedotova, Dr.oec., Assistant Professor. Her research interests lie in real estate management, sustainable development issues in the real estate market. K. Fedotova is the author and co-author of scientific publications, she is also the co-author of two books and regulations. She regularly enhances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the project ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. Qualification of Assistant Professor Fedotova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Internship”, “Qualifying Practical Placement”.

Antra Kundziņa, Dr.sc.ing., Assistant Professor. The author of numerous scientific publications. Her research areas include strategic business management, sustainability of real estate market development, building construction sector. In parallel to her work at RTU, she works as a researcher at the Institute of Physical Energetics. Qualification of Assistant Professor Kundziņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Service Lines of Houses and Buildings”, “Energy Efficiency in House and Building Management” and “Evaluation of Technical State of Buildings and Structures”.

Linda Kauškale, Dr.oec., Assistant Professor, an expert of social sciences at the Latvian Council of Science in such fields as Economy and Entrepreneurship; Social and Economic Geography and other social sciences, including generic ones. In 2016, L. Kauškale became beneficiary of a scholarship Deutsche Bundesstiftung Umwelt, she works at the German Sustainable Building Council. Linda Kauškale is the author of numerous scientific publications, she has participated in international scientific projects, conferences and workshops in Latvia and abroad, etc. Her main areas of research include sustainable development of real estate market, sustainable building construction, environment-friendly buildings, certification of green building construction, macroeconomic analysis, decision making, environment protection and others. Qualification of Assistant Professor Kauškale meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Investments in Real Estate” and “Real Estate Economics”.

Oksana Pavļenko, Dr.sc.ing., Assistant Professor. Her research and academic interests lie in finance time-series analysis, stochastic dynamics. She is the author and co-author of numerous internationally recognized publications. She has worked on the scientific research project "Copula-based risk assessment autoregressive models". She regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of Assistant Professor O.Pavļenko meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Mathematics".

Iveta Amoliņa, Mg.oec., Dipl.iur., 4th-year Doctoral student, lecturer. Her research interests lie in such fields as problems of real estate systemic management, housing policies, residential development, maintenance and rehabilitation strategy, energy conservation measures and impact on the environment and sustainability. Iveta Amoliņa is an expert in residential management and rehabilitation. She is the author and co-author of over 30 scientific publications. Ivetas Amoliņa's professional experience is based on supervision of six ERAF SF projects "Improvement of energy efficiency in residential buildings". I. Amoliņa is an expert at the ESF project 8.5.2.0./16/I/001 "Improvement of the industry qualification system for the development of vocational education and quality assurance". Qualification of Lecturer I. Amoliņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Legal Bases of Real Estate and Movable Property" and "Organization of Real Estate Management and Administration" and "Insurance of Real Estate".

Laimdota Šnīdere, Dr.phys., Assistant Professor, RTU researcher. Her current research interests lie in the areas of energy conservation and sustainable development of building construction sector. She is a co-author of scientific publications. She regularly enhances her competence by attending workshops, conferences and professional training courses. As a researcher L.Šnīdere works on the project INTERREG EU "Optimization of waste management in urban spaces and in households" (01.08.2019. – 31.01.2023.) Qualification of Assistant Professor Šnīdere meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Energy Efficiency in House and Building Management" and "Management and Maintenance of Real Estate (study project)".

Jānis Zvirgzdiņš, Mg.sc.oec., Dipl.ing., researcher, 2nd-year Doctoral student. His research and academic interests lie in environment-friendly economy, circular economy, sustainable development, smart urban environment, renewable and nuclear energy, as well as public administration. He was awarded the prize of the Latvian Association of Electrical Power Engineering and Energy Contest of Qualification Papers in 2015. He is a co-author of numerous scientific publications. At the moment, he works on the projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education; No 2018-1-LT01-KA203-046963. 01.09.2018 – 31.08.2020, and on the project INTERREG EU "PROmoting the Governance of Regional Ecosystem Services – 31.07.2023). He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of J. Zvirgzdiņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Management of Ecology".

Iveta Stāmure, Mg.oec., researcher, PhD candidate. Her interests lie in the issues related to real estate management and administration, building construction, evaluation of buildings and constructions, building materials. In parallel, she works as a real estate consultant at the society "Cēres nami" and at the Latvian Window and Door Manufacturers Association. She conducts

practical training classes within the study courses “Law on construction and rules on construction” and “Valuation of Building Structures”. She regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of I. Stāmure meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Law on Construction and Rules on Construction”.

Kaspars Freimanis, Dipl.ing., research assistant. His interests lie in the issues related to building construction sector, evaluation of buildings and building structures, building materials, improvement of energy efficiency. In parallel, he works for the municipal enterprise “Namsaimnieks” Ltd. of Limbazhi urban area as a real estate manager, building cost estimate engineer, IT system administrator. He conducts practical training classes within the study courses “Law on construction and rules on construction” and “Valuation of Building Structures”. He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of K. Freimanis meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Law on Construction and Rules on Construction” and “Valuation of Building Structures”.

Ģirts Zariņš, MBA, BSc. phys. (Specialization – IT Electronics), certified CMMI 3 project management auditor, 1st-year Doctoral student, carries out research in urban economics, modelling, growth and sustainable development. He is a co-author of numerous scientific publications. His professional qualification was obtained during his work as a project manager for various companies in Latvia. Ģ. Zariņš regularly enhances competence by attending workshops, conferences and professional training courses. Qualification of Ģ. Zariņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Law on Construction and Rules on Construction” and “Commercial Calculus in Property Management”.

Gunārs Ozolzīle, Dr.sc.soc., Associate Professor. Professional experience: since 1989 teaching social sciences at RTU (Sociology, Politology and Political System of Latvia) and other higher education institutions in Latvia (University of Latvia, Latvian Academy of Sport Education, Police Academy of Latvia, College of Business Administration and Institute of Social Technologies); since 2005 the Chairman of the State Examination Commission at the Bachelor and Master study program “Sociology of Organizations and Public Administration” at the Faculty of Economics and Social Development of the University of Life Sciences and Technologies. From 1991 till 2018, he was a researcher at the market and public opinion research company Baltic Studies Centre Ltd. Research link with students is also ensured by scientific research work in projects funded by the Latvian Council of Science, the Ministry of Defense and the EU, participation in the conferences and development of scientific publications. Scientific research activities mainly address stability and efficiency of the Latvian political system, as well as reformation opportunities of certain political institutions. Such research contributes to increasing the quality of the implemented study courses and to ensuring links with national political processes. Regular methodological work – development of teaching tools and other methodological materials – helps increase efficiency of study work. Qualification of G. Ozolzīle meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Business Etiquette”.

Airisa Šteinberga, Dr.psych., Associate Professor. Professional experience: lecturing and development of study programs in different psychology-related fields (psychology, cognitive and social psychology, pedagogical psychology, etc.) for over 25 years, development of pedagogical advancement course programs and learning activities and lecturing thereof at RTU for more than

10 years. Regular professional training as a psychologist, work as a counselling psychologist, as well as long-term academic experience allows enriching curricula of study courses, but pedagogical style and personal attitude also help add diversity to the lectures, practical training and learning tasks. Research experience in joint projects with researcher of the Engineering Science Institute allows understanding and using the examples and terminology in the mode comprehensible for the students. A. Qualification of Šteinberga meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Organizational Psychology".

Ingūna Jurgelāne - Kaldava, Dr.oec., Associate Professor, professional experience: researcher and manager of numerous international projects. The research component working with students is added participating in scientific conferences, as well as developing publications in internationally recognized scientific publications, etc. A variety of research methods is used to present research results in the publications, including statistic ones that allow introducing the research results to the students. She is a co-author of the study book "Economic Statistics", the author and co-author of numerous scientific publications. Regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of I.Jurgelāne - Kaldava meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Economic Statistics". Different teaching methods are applied in delivering the study course, which allows students to develop skills in statistic information collection, compilation and analysis within a certain study program, using relevant information and data.

Genādijs Šahmenko, Dr.sc.ing., Associate Professor, has been involved in the work on different local and international projects, for example, "Development of waste-free technology guidelines for aluminum scrap recycling plants", "Application a Dolomite Waste as Filler in Expanded Clay Lightweight Concrete", "Manufacturing of effective and sustainable low-density building materials using industrial waste and local natural resources". Participated in the patenting group for 7 patents and is their co-author. The author and co-author of numerous scientific publications. Regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of G. Šahmenko meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Fundamentals of Building Construction and Construction Products".

Jeļena Malahova, Dr.oec., Associate Professor. The research component working with students is added participating in training workshops, scientific conferences and developing written publications. Active participation in different projects and scientific contracts. Within the study process, students acquire the relevant information according to the Cabinet Regulation No 716 "Minimum Requirements for the Content of the Mandatory Course in Civil Defense and the Content of Training of Employees in Civil Defense". She is the author and co-author of numerous scientific publications, regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of J.Malahova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Civil Defense".

Irina Liokumoviča, Dr. philol., Assistant Professor. Philologist, English teacher. English language teaching in the context of economics contributes to achievement of academic results. She has participated in international scientific conferences with presentations of reports (for instance, in the scientific conference "Linguistic, Didactic and Sociocultural Aspects of Language Functioning", Vilnius, Lithuania (2018), international conference "XXVIII Scientific Readings" (2018) at the Faculty of Humanities of the University of Daugavpils, and others, which allow gaining and sharing experience. Participation in the academic partnership "Partnership for Education and Research

about responsible living (PERL)” enables to be aware of the latest trends in the sector, promotes using of methods and their adaptation. Qualification of I. Liokumoviča meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “The English Language”.

Leonards Budņiks, Mg.oec., Mg.oec., FEEM Lecturer, ICF certified professional coach, Microsoft certified Excel expert. L. Budņiks continuously advances his professional knowledge attending local IT conferences and forums, participates in online courses and seminars, demonstrates deep interest in the impact of information technology on the society and economy. Research interests lie in information technology and systems management at small and medium-sized enterprises, open data concept, research on social impact of IT development. Qualification of L.Budņiks meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Computer Science (basic course)”.

Karlis Ketners, Dr.sc.ing, RTU Professor. K.Ketners is the author and co-author of numerous scientific publications, he is also a co-author of patents. Regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of K.Ketners meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Electrical Equipment and Power Engineering (for architects)”.

Larisa Iljinska, Dr.phil., Professor, the author and co-author of numerous scientific publications, including the study book. Regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of L. Iljinska meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study courses “The German Language” and “The Russian Language”.

Currently, two visiting lecturers are working at the study program. These instructors work at other higher education institutions, but they deliver certain study courses within the study program in the form of exchange, thus ensuring cooperation not only within RTU, but also with other universities.

The academic staff advance their its teaching skills and qualifications by attending conferences and workshops, different training courses, working at other organizations as consulting specialists and gaining hands-on work experience.

The university instructors annually take an active part in the methodological seminars organized by RTU and other universities.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation**

**of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Within the scope of research for Deutsche Bundesstiftung Umwelt DBU exchange program scholarships "MOE Ausstauschstipendi-umprogramm – Scholarship Program Central and Eastern Europe (MOE)", in Germany, in the autumn semester of 2016 the scientific assistant L. Kaushkale carried out research within the project submitted in Germany "The Environmental and Economic Substantiation of Investments in Green Buildings". The recent findings acquired during the research are integrated in the study courses "Real Estate Economics" and "Investments in Real Estate".

On 4 – 11 July 2018, the annual Baltic Sea Region Teachers Course in sustainable development "The SAIL (Sustainability Applied in International Teaching and Learning) Teachers Course 2018" took place within the Baltic University, attended by Professor T.Tambovceva. The teachers of different cultural background from various countries and universities, representing a variety of study disciplines and scientific fields had an opportunity to share their knowledge, experience, to study and to teach, to develop their skills in the field, as well as to do a joint work. The main goal of the event was to enhance education and scientific research in the field of sustainable development by giving practical recommendations, proposals and solutions. The acquired information was saturated with good practices of enhanced education in sustainable development based on unique experience of different countries, study disciplines and research fields. The study program has had this knowledge integrated in many study courses, for example, "Project Management of the Civil Construction Business and Real Estate Management" and "Management of Ecology".

Since 2012 the Director of ICEREE, Professor Ineta Geipele has been a jury member at the contest "The most energy efficient building in Latvia 20xx" organized by of LR Ministry of Economics and VARAM within ESF Project "Live Warmer!" Also, since 2015 Professor Ineta Geipele has been a jury member at the contest "The Best Building of the Year" organized by the Latvian Builders Association, since 2014 Professor Ineta Geipele has been an evaluator at the contest "Annual Construction Industry Award" within the project of LR Ministry of Economics and Latvian Association of Civil Engineers. The acquired experience and knowledge are applied within the study course "Marketing of Real Estate".

The academic personnel participating in the implementation of ICEREE study program took part in the work of the jury at LANIDA contest "Real Estate Agent 2017". The acquired experience and knowledge were integrated into various study courses of the study program.

Associate Professor G. Ozolzīle worked as a researcher at the market and social thought research company (Ltd) Baltijas studiju centrs (1991-2018), as well as conducts scientific research work within the projects funded by the Latvian Council of Science, the Ministry of Defense of the Republic



of Latvia and the EU. This knowledge is integrated into the block of Humanities & Social Sciences.

Professor I. Geipele and researcher I. Stāmure take part in the trainee program, planned for RTU academic personnel within ESF Project No 8.2.2.0/18/A/017 "Strengthening of Academic Personnel of Riga Technical University in Strategic Specialization Areas".

The acquired experience and knowledge upon completion of training is going to be integrated in the study programs of engineering study courses.

Within the framework of the implemented study courses, the information on updates and innovative technologies is integrated, training on-site excursions have been organized, technological updates are integrated in the study course "Energy Efficiency in House and Building Management", "Management of Ecology", "Fundamentals of Building Construction and Construction Products", etc. Students have an opportunity to take part in tender presentations and obtain the information about updates.

Research results are published not only in the journals indexed in the internationally recognized databases, but also in the Baltic Journal of Real Estate Economics and Construction Management: scientific journal of Riga Technical University, where both academic personnel and students can publish their papers.

The academic personnel involved in the implementation of the study program have published scientific monographs:

1. Nekustamais īpašums un ekonomikas attīstība: zinātnes un prakses sinerģija: Scientific monograph (Real Estate and Economic Growth: Synergy of Science and Practice)/ Sandas Geipeles and Rajas Kočanovas (Eds.); reviewers: Tālav Jundzis, Namejs Zeltniš, Maira Leščevica; literary editor Inga Skuja; cover design: Paula Lore; Riga Technical University. The Institute of the Civil Engineering and Real Estate Economics. Riga: RTU Press, 2019. 239 p. <https://doi.org/10.7250/9789934222313>
2. Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā: Management System of Real Estate Market Development in Latvia); scientific monograph / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible publishing editor Natālija Čina; editor Lilita Vīksna; cover design Sanda Geipele]; Riga Technical University. The Institute of the Civil Engineering and Real Estate Economics. The Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p. <http://dx.doi.org/10.7250/9789934107610>
3. Geipele, Sanda. Management system of real estate market development in Latvia: summary of doctoral thesis; field: management science, subfield: entrepreneurship and business management / Sanda Geipele; scientific supervisor: Tatjana Tambovceva; Riga Technical University. Faculty of Engineering Economics and Management. Institute of the Civil Engineering and Real Estate Economics. Riga: RTU Press, 2014. 63 p.
4. Kauškale, Linda. Assessment of Sustainable Development of the Real Estate Market: Case of Latvia: summary of the doctoral thesis / Linda Kauškale; scientific supervisors: Dr.oec. Ineta Geipele, Dr.rer.pol. Frank Riemenschneider-Greif; official reviewers: Dr.oec. Elīna Gaile-Sarkane, Dr.oec. Maira Leščevica, Dr.oec. Natalya Bibik; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2018. 60 p.
5. Kočanova, R., Geipele, I., Niedrīte, V. Stratēģiskās vadīšanas sistēma organizāciju ilgtspējīgai attīstībai (Strategic Management System for Sustainable Development of Organizations); scientific monograph. Riga: RTU Press. 2013. 175 p. ISBN-9789934103483.

Study books are also published, such as, for instance, the study book by Jānis Viesturs and Ineta

Geipele "Starptautiskie darījumi ar nekustamo īpašumu" (International Real Estate Transactions), published in 2017. [Viesturs J., Geipele I. International Real Estate Transactions: Study book. Riga: RTU Press, 2017. 220 p. ISBN 978-9934-10-903-4.].

The examples presented above confirm that the information acquired during research is integrated in the study process within every study course.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

In order to promote achievement of the study program outcomes, it is important to establish the crosslinks among the study courses and to ensure they are acquired in the logical sequential order. The system that facilitates regular organization of academic conferences and professional advancement seminars for improvement of professional competence has been established to promote cooperation among the academic staff at the Faculty and the University on the whole. Academic conference "Integration of methodological teaching and research work in the study process" organized on 27 April 2018 may be mentioned as an example. Such events promote advancement of the academic staff and provide opportunity to more efficiently collaborate in reaching learning outcomes and improving the study courses.

The study program implemented by the ICEREE is interdisciplinary. The curriculum consists of the study courses in building engineering, materials science, power engineering, social and economic geography, economics and entrepreneurship, other interdisciplinary social sciences, environment and occupational safety. Therefore, instructors from different organizational units, as well as industry specialists are involved in the implementation of the study courses. For example, ICEREE instructors deliver the study course "Service Lines of Houses and Buildings" and certain practical classes took place at "Rīgas ūdens" Ltd. (Riga Water Supply and Sewerage Company). Practical training classes within the study course are provided both by university instructors and industry professionals.

The lecture on the topical issues in Real Estate Management and Administration was conducted jointly by Professor Ineta Geipele and MScRE Ģirts Beikmanis, the chair of the *Association of Management and Administration of Latvian Housing*.

Cooperation among the members of academic staff is supported by the fact that before the start of the study semester the academic personnel meet and agree upon the curriculum to avoid duplication of the study course curricula.

Course sequence is provided to ensure transition from the simple and general to the more complex and professional level, which allows promoting interrelationship and progressive sequence.

The department responsible for implementation of the study program evaluates the study process and the learning outcomes at the meeting at the end of each semester. Student questionnaires concerning the quality of the study course implementation are very important in this respect. Based on the analysis of the current situation effective joint solutions are found. For example, amendments to certain study course structures are made to avoid partial duplication and to enhance interrelationship between the study courses, or changes to the curriculum of the study

program are made.

The ratio of students to academical staff is:

89 students: 27 lecturers.

Analyzing it can be concluded that there are 3.29 students per lecturer. However, it should be noted that in some study courses theoretical classes are led by one lecturer, but practical classes - by another lecturer.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	5.pielikums_RIKNO_statistika.pdf	5.pielikums_RIKNO_statistika.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	BUNII_RIKNO_2019__7_piel_LV_EN.pdf	6_pielikums_valsts standarts.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	RIKNO_profesijas standarts_LV_EN.pdf	RIKNO_profesijas standarts_LV_EN.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8. pielikums. Studiju kursu kartējums_EN.pdf	8. pielikums. Studiju kursu kartējums _RIKNO.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Plāni_RIKNO_2020.pdf	Plāni_RIKNO_2020.pdf
Descriptions of the study courses/ modules	RIKNO EN studiju kursi.zip	RIKNO LV studiju kursi.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms 1. līmenis.pdf	Diploms 1. līmenis.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	turpinasana_koledza.zip	turpinasana_koledza.zip
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under <a href="http://www.europass.lv">www.europass.lv</a> ), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study agreement sample.pdf	Studiju līguma paraugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Civil Construction and Real Estate Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Civil Construction and Real Estate Management</i>
Education classification code	<i>47581</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Ineta</i>
Surname of the study programme director	<i>Geipele</i>
E-mail of the study programme director	<i>Ineta.Geipele@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr.oec</i>
Phone of the study programme director	<i>67089033</i>
Goal of the study programme	<i>To educate entrepreneurs and managers, paying particular attention to the acquisition of high quality knowledge in the fields of civil construction and real estate development and management, to train specialists not only for scientific and pedagogical work but also for professional work at local governments, public bodies, financial and insurance fields, commercial companies, non-governmental, international and national organizations operating in the fields of civil construction and real estate.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>• To provide students with a wide range of professional, practical-oriented education, enabling them to easily adapt to the labor market, perform research and continue education at Doctoral studies;</i></li> <li><i>• To provide students with a Bachelor academic degree of social sciences, with theoretical and practical training appropriate to the fifth level of professional qualifications, enabling them to obtain the qualification of an estate appraiser;</i></li> <li><i>• To enable students obtaining the qualification directly related to their future work, to provide opportunities for acquiring theoretical knowledge and skills that would allow graduates to start practical activities upon completion of the program;</i></li> <li><i>• To ensure acquisition of modern general knowledge, to develop economic thinking, to promote analytical capacities of students, to develop skills in addressing professional issues and tasks, developing projects that allow graduates to engage in solution of the national economy issues;</i></li> <li><i>• To develop the teamwork capabilities for cooperating with professionals from different fields, to provide an opportunity to develop foreign language skills that would ensure the ability to cooperate with foreign counterparts.</i></li> </ul>

Results of the study programme	<ul style="list-style-type: none"> <li>• <i>know and understand the general and specific development trends of construction and real estate.</i></li> <li>• <i>know and understand the factors influencing the value of real estate.</i></li> <li>• <i>to understand the causes of the processes taking place in the construction and real estate market and to assess the possible consequences.</i></li> <li>• <i>to know management methods in construction business and real estate.</i></li> <li>• <i>to understand the impact of regulatory enactments on macroeconomic processes and the construction business and real estate market.</i></li> <li>• <i>Understand the short- and long-term environmental impact of construction and real estate transactions.</i></li> <li>• <i>be able to assess various social and political processes and anticipate their impact on construction and real estate business.</i></li> <li>• <i>to ensure effective communication and interaction with customers in the company using management methods.</i></li> <li>• <i>qualified to prepare and present real estate investment projects.</i></li> <li>• <i>use various real estate valuation methods and improvement methods.</i></li> <li>• <i>to observe ethical and cultural principles in real estate transactions.</i></li> <li>• <i>use modern information technologies in construction and real estate.</i></li> <li>• <i>be able to create the necessary information flow for optimal management decisions.</i></li> <li>• <i>be able to use real estate improvement methods to increase its value.</i></li> <li>• <i>identify and use various alternative solutions for the use of real estate</i></li> <li>• <i>to use the regularities of real estate economics in decision-making.</i></li> <li>• <i>is able to create and ensure working conditions appropriate to the environment, labor protection and fire safety in accordance with the requirements of labor protection, environmental protection and fire safety for the performance of direct work.</i></li> </ul>
Final examination upon the completion of the study programme	<i>Master Thesis</i>

## Study programme forms

### Full time studies - 1 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>60</i>

Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of management and administration, finances, banking and insurance, accounting and taxes, law, architecture and urban planning, construction and civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 1 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>english</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>professional bachelor degree or fifth level professional qualification in the fields of management and administration, finances, banking and insurance, accounting and taxes, law, architecture and urban planning, construction and civil engineering, or comparable education. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 1 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>40</i>
Admission requirements (in English)	<i>professional bachelor degree in real estate management and fifth level professional qualification of real estate manager or real estate economist or real estate appraiser</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 2 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	60
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of management and administration, finances, banking and insurance, accounting and taxes, law, architecture and urban planning, construction and civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 1 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	1
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	40
Admission requirements (in English)	<i>professional bachelor degree in real estate management and fifth level professional qualification of real estate manager or real estate economist or real estate appraiser</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>english</i>
Amount (CP)	100



Admission requirements (in English)	<i>Bachelor degree of social science in economics, management, law or bachelor degree of engineering science in civil engineering. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>bachelor degree of social science in economics, management, law or bachelor degree of engineering science in civil engineering</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of real estate management or civil engineering and construction, architecture and urban planning, or bachelor of engineering science in construction, or comparable education in construction science</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Construction cost engineer</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 3 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	3
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	100
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of real estate management or civil engineering and construction, architecture and urban planning, or bachelor of engineering science in construction, or comparable education in construction science</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Construction cost engineer</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 3 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	3
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	100
Admission requirements (in English)	<i>bachelor degree of social science in economics, management, law or bachelor degree of engineering science in civil engineering</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in civil construction and real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Construction Industry Expert Council 17.12.2019. at the meeting discussed the issue of the discrepancy between the educational classification of real estate exploitation and management programs and the international classification of education and training sectors

(International Standard Classification of Education: Fields of Education and Training, hereinafter ISCED - F 2013) and the Qualifications Framework for the Construction Industry.

The Council of Construction Experts requested the Ministry of Education to remedy the inconsistency of the International Real Estate Classification of Education and Training (ISCED - F 2013) with the Classification of Real Estate Operations and Management in Construction, At the meeting of the Tripartite Cooperation Sub Council on Vocational Education and Employment (PINTSA), April 10, 2019, Protocol No. 2 to the approved Qualifications Framework for the Construction Industry. Classification of study programs in the field of real estate operation and management in the field of construction shall be classified by the Cabinet of Ministers Regulation No. 322 "Classification of Education in Latvia" curriculum code 581 or 582 "Construction and civil engineering" in the thematic area "Architecture and Construction".

On December 16, 2019, the RTU Senate approved changes to the Master's study program, changing the professional qualification "Real Estate Economist" to "Real Estate Appraiser". Consequently, the study program is supplemented with the study courses necessary for obtaining the qualification of a real estate appraiser.

Option 1 of the professional master's study program "Construction Entrepreneurship and Real Estate Management" (students at the previous level have acquired a professional Bachelor's degree and a 5th level professional qualification obtained after completing the program in the following groups of programs: Management and Administration; insurance, accounting and tax; law; architecture and town planning; construction and civil engineering or equivalent) and option 4 (students with a previous Bachelor's degree in Real Estate Management and a 5th level professional qualification after graduation graduate program in Real Estate Management (Qualified as a Real Estate Manager or Real Estate Economist), so far, graduates have only been awarded a Professional Master's Degree business and real estate management. In these cases, no professional qualification was given to the Real Estate Appraiser.

Taking into account the Higher Education Quality Agency's Critique of RTU IEVF in February 2020: "... Please note that only students who have already obtained the professional qualification of economist after the completion of the professional master's study program may not be awarded a professional qualification. ... "And pursuant to Article 29 of the Cabinet of Ministers Regulation No. 512 of 26 August 2014" Regulations on the National Standard of Second Level Professional Higher Education ", the draft decision on amendments is being forwarded to the Riga Technical University Senate on February 24, 2020 in the mentioned study program - to add the professional qualification of the real estate appraiser to be awarded to the graduates in variants 1 and 4 of the program

implementation (except in cases when the qualification of the real estate appraiser has been acquired at the advanced level of study).

**1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

When analyzing the total number of students during the reporting period, it should be concluded that there has been an increase in the number of students studying in Latvian since academic year 2013/2014. In academic year 2018/2019, there was the biggest number of students in the program – 111 students.

Since academic year 2013/2014, the number of foreign students has grown. In academic year 2018/2019, the total number of foreign students was 56.

The reasons can be the unclear situation with the industry's policy, negative information in the press that directly affects the sector, strict regulatory requirements, etc. Full-time studies have higher tuition fees.

When analyzing the proportion of full- and part-time students over the years, it can be concluded that part-time students contain the majority of fee-paying students, i.e., in academic year 2013/2014, part-time fee-paying students constituted 95.71%, in other years respectively – 85.71%, 69.73%, 70.73%, 72.94% and 71.77%. Students choose part-time studies, as it allows them to combine studies with work. Full-time students have difficulty in finding full-time jobs in the real estate sector. There are situations encountered when full-time students transfer from full- to part-time studies after starting their work. On average, such opportunity is used by about 3% of the total number of full-time students.

The analysis of foreign students shows that all of them are full-time fee-paying students.

When analyzing the number of students of the study program by types of financing, i.e., study seats financed from the state budget and study seats for fee, it can be concluded that every year the number of fee-paying students exceeds the number of students financed from the state budget.

Academic year	Number of students	Country
2013/2014	3	India
	1	Lebanon
	2	Nepal
	1	Sri Lanka

2014/2015	1	Georgia
	5	India
	1	Lebanon
	5	Nepal
	1	Sri Lanka
	2	Uzbekistan
2015/2016	1	Bangladesh
	1	Georgia
	8	India
	1	Russia
	1	Lebanon
	4	Nepal
	2	Sri Lanka
	2	Uzbekistan
2016/2017	1	Bangladesh
	1	Georgia
	29	India
	1	Russia
	1	Lebanon
	1	Nepal
	1	Nigeria
	2	Uzbekistan

2017/2018	43	India
	1	Russia
	1	Lebanon
	1	Mexico
	1	Nepal
	2	Nigeria
	1	Sri Lanka
	1	Turkey
2018/2019	49	India
	1	Lebanon
	1	Mexico
	2	Nigeria
	2	Sri Lanka
	1	Turkey

It is obvious from the analysis that the majority of foreign students are from Asia. The study program has become widely popular due to the active involvement of the Director of the Foreign Students Department and Director of the study program by participating in international conferences and actively promoting recognition of the study program in the world.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The accredited Master professional education study program “Civil Construction and Real Estate Management” is the final stage in the higher professional education that concludes the study program implemented by the Institute of the Civil Engineering and Real Estate Economics (ICEREE) of the Faculty of Engineering Economics and Management (FEEM) at RTU in the field of construction and real estate management.

The Institute of Civil Engineering and Real Estate Economics of the Faculty of Engineering Economics and Management of Riga Technical University tightly cooperates with professional associations – members of international organizations (associations) FIABCI and CEPI, and thus aims and objectives of the educational program are consistent with the rules laid down by these

organizations for common professional requirements worldwide and in Europe. Already since 2006, the ICEREE of RTU is a member of FIABCI, the International Real Estate Federation.

In setting up a common platform for professional qualification requirements in the EU, in the field of construction and real estate, associations highlight the development of a uniform quality of education in Europe.

The Master professional study program “Civil Construction and Real Estate Management” is unique in Latvia and the Baltic states – there are only a few similar programs in the international education area of the European Union (EU).

The aim of the Master professional study program “Civil Construction and Real Estate Management” is to educate entrepreneurs and managers, paying particular attention to the acquisition of high quality knowledge in the fields of civil construction and real estate development and management and its transfer to commercial operations, to train specialists not only for scientific and pedagogical work but also for professional work at local governments, public bodies, financial and insurance fields, commercial companies, non-governmental, international and national organizations operating in the fields of civil construction and real estate.

The study program focuses on the interdisciplinary higher education model, uniting engineering, natural and physical sciences, social sciences and humanities, thereby providing the national economy with competitive cross-sectoral professionals, ready to operate locally and globally for building our common future.

At the end of the program, students must develop a Master Thesis devoted to current issues in construction and real estate management. The performance measurements are the results of student studies, the independently developed Master Thesis, having significant theoretical relevance and practical application features, which include original scientific research results, demonstrate the skills to acquire, select and analyze information independently and use it to address issues in the field of real estate management.

The name of the study program, the degree and professional qualification to be acquired, the aims and tasks of the study program and the learning outcomes are mutually aligned.

The study program is implemented in the of 40 CP, 60 CP and 100 CP in order to fulfil the provisions of the Cabinet of Ministers Regulations No. 512 “Regulations on the National Standard for the Second Level Professional Higher Education” that “The duration of full-time studies of the master’s program is one to two years, provided that the total duration of bachelor’s and master’s studies is not less than five years” and specified in Paragraph 28 that “in the master’s program the choice of study courses, content and volume of study courses, as well as internship content for the degree to be obtained is determined according to the professional standard”. In this case, the content of the study program is determined by the professional standards “Real estate appraiser” and “Construction cost engineer”.

The 100 CP studies are applicable to students who have obtained an academic bachelor’s degree in the previous study period to ensure the provisions of Paragraph 23.3: “The compulsory content of the master’s program consists of internship in the volume of at least 26 credit points, if it is intended for graduates of the bachelor’s program” and specified in Paragraph 27 that “students of the master’s program with a previously obtained academic bachelor’s degree after successful completion of the master’s program obtain a fifth level professional qualification”.

Thus, in order to simultaneously ensure all the above-mentioned requirements of the Cabinet of Ministers Regulations No. 512, the 60 CP program, with the duration of full-time studies is 1 year and 6 months (including internship in the volume of 6 CP), adds a compulsory internship in the

volume of another 20 CP specified in Paragraph 23.3 thus reaching the volume of 26 CP), consequently the volume of the study program increases to 100 CP.

The multisectoral approach applied to the implementation of the study program allows students to apply their knowledge gained during theoretical parts of the studies in practice to the analysis and resolution of current issues of the specific undertakings or institutions, which allows them to maximize their integration into the real working environment. The implementation of the study program focuses on the use of innovative technologies and comprehensive assessment of sustainable economic development.

The Master professional degree in civil construction and real estate management or the Master professional degree in civil construction and real estate management and real estate appraiser or the qualification of construction cost engineer is granted upon completion of theoretical study courses, fulfilment of practical tasks and public presentation of the Master Thesis in front of the State Examination Commission.

The results of the student knowledge assessment in the Master professional study program are discussed twice a year at ICEREE Council meetings. The results are also summarized and evaluated by the program administration and such serve as a basis for further improvement of the study process. Reference on the quality of the Master Theses and their public presentation is provided by the State Examination Commission, which submits a report to the study program administration regarding the public presentation of the Master Theses.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

Since the last accreditation of the study program, the content has been updated so that its content is up-to-date, complementary, consistent with the objectives of the program and ensuring that the learning outcomes are achieved and comply with the needs of the field of construction and real estate management and the latest scientific trends and innovative practices.

The Institute of Civil Engineering and Real Estate Economics of the Faculty of Engineering Economics and Management of Riga Technical University tightly cooperates with professional associations – members of international organizations (associations) FIABCI, CEPI and TEGoVA. Aims and tasks of the study program are consistent with the rules laid down by these organizations for common professional requirements worldwide and in Europe. Already since 2006, the ICEREE of RTU is a member of FIABCI, the International Real Estate Federation.

When developing the RTU Development Strategy, recognizing the role of the university in the



growth of the Baltic Sea region and the formation of Latvia's future, the priorities of the European Union, as well as the guidelines of the education and innovation policy planning documents at national and regional level, are observed.

Successful implementation of the RTU Development Strategy is the basis for building a knowledge-based Latvian society and RTU is one of the most important partners for achieving the strategic objective set out in the Latvian National Development Plan – education and knowledge for economic growth and technological excellence.

The mission of RTU is to ensure the internationally competitive high-quality scientific research, higher education, technology transfer and innovations for Latvian economy and society.<sup>[1]</sup>

Aims of the Master professional study program “Civil Construction and Real Estate Management” are in line with the RTU mission and are focused on education and training of specialists.

On the regional level in Latvia, to meet the requirements of the Energy Charter, opportunities for specialized qualification upgrade (lectures and seminars) are also set, with topics adapted to these requirements, which is manifested by the joint cooperation with the Ministry of Economics of the Republic of Latvia and the Ministry of Environmental Protection and Regional Development of the Republic of Latvia during the period from 2009 to 2014, within the framework of which lecturers are both representatives of the aforementioned ministries and foreign specialists.

The content and implementation of the study program focuses on the creation of skills that are adaptable and responsive to changes, following and even stepping up the labor market demand.

The program is in conformity with the main setting of the Strategy and Development Program 2014–2020 of Riga Technical University (RTU): to ensure the implementation of the key guidelines of the National Development Plan for 2014–2020. RTU positions itself as one of the cornerstones of Latvia's development that ensures education and training of specialists needed for the Latvian economy, as well as creation of new products and services, serving as a basis for sustainable growth in Latvia. The RTU Strategy includes key settings for the development of RTU for the period up to 2020, and sets out activities to be performed and the division of responsibilities for the performance of the outstanding objectives.

In order to achieve the vision of RTU to become the leading science and innovation university in the Baltic States by 2020, the Strategy sets out three objectives of the University: the qualitative study process, excellent research, sustainable innovation and commercialization activities. Specific performance indicators are defined for these purposes.

The aim of the qualitative study process is internationally competitive, analytically and creatively thinking specialists in the construction and real estate management field educated and trained during prestigious, internationally recognized high-quality studies, who ensure development of the Latvian economy and who have the capacity for life-long education. The aim of excellent research is high-quality scientific research that meets the needs of the Latvian and world's economy, is extensively involved in international, national and sectoral research programs and is integrated into the study process. Sustainable valorization aims at an efficient environment of technology transfer and innovation development that promotes establishment of new technological companies and creation of products.

Construction Industry Expert Council 17.12.2019. at the meeting discussed the issue of the discrepancy between the educational classification of real estate exploitation and management programs and the international classification of education and training sectors

(International Standard Classification of Education: Fields of Education and Training, hereinafter ISCED - F 2013) and the Qualifications Framework for the Construction Industry.

The Council of Construction Experts requested the Ministry of Education to remedy the inconsistency of the International Real Estate Classification of Education and Training (ISCED - F 2013) with the Classification of Real Estate Operations and Management in Construction, At the meeting of the Tripartite Cooperation Sub Council on Vocational Education and Employment (PINTSA), April 10, 2019, Protocol No. 2 to the approved Qualifications Framework for the Construction Industry. Classification of study programs in the field of real estate operation and management in the field of construction shall be classified by the Cabinet of Ministers Regulation No. 322 "Classification of Education in Latvia" curriculum code 582 "Construction and civil engineering" in the thematic area "Architecture and Construction".

In 2014/2015 academic year, the content of the study program was developed in line with modern requirements and those of occupational standards. In line with the new version of the state standard and the decision of the RTU Senate meeting of 23 March 2015 "On Unified Requirements to Study Programs at Riga Technical University", in cooperation with representatives of employers and program advisers, improvements in the structure of the study program were made, supplementing with new study courses, as well as introducing substantive changes to the study courses, in order to ensure their compliance with the modern requirements of the market and the occupational standards.

In 2018/2019 academic year, the content of the study programs was updated to avoid the material duplication of the study courses and fragmentation of the study program and changes were approved to the study field "Management, Administration and Real Estate Management" of the professional Master study program.

On December 16, 2019, the RTU Senate approved changes to the Master's study program, changing the professional qualification "Real Estate Economist" to "Real Estate Appraiser". Consequently, the study program is supplemented with the study courses necessary for obtaining the qualification of a real estate appraiser.

Each year in October, the study program administration submits a report to the boards of professional associations involved in the study program, its study courses and their content. When required, supplements and changes in the content of the study courses in line with the industry and the labour market developments are introduced and evaluated by the industry professionals.

The academic staff involved in the program have a sufficient number of scientific publications on the subject of the conducted course.

Since the last accreditation, the content of the study program has been updated to be up to date, complementary, in line with the objectives of the program and ensuring that the learning outcomes are achieved, as well as meeting the needs of the construction sector and real estate management and the latest scientific trends and innovative practices.

Every study year has 2 semesters; the duration of each semester is 20 weeks – 16 weeks of studies and 4-week long session. Part-time studies at RTU are organized in compliance with decisions of the RTU Senate and orders of the administration.

Thus, for instance, in March–April 2014, visiting lectures were conducted for both students and the academic staff on topical issues of construction, renovation and reconstruction in the EU by Andrzej Czemplik from Wrocław University of Technology, Poland.

In August 2014, visiting lectures were conducted for the Master program students and the academic staff "Historical Aspects and Experience of Solving Policy and Property Philosophy Issues Concerning Real Estate" by Dr. hist. Kaspars Kļaviņš (Professor of History and Cross-Cultural Management, Emirates College of Technology in Abu Dhabi, United Arab Emirates).

In October 2014, visiting lectures were conducted for both students and lecturers “Real Estate Development” and “Real Estate Life Cycle Evaluation” in English by Dr. Frank Riemenschneider (Fachhochschule Münster University of Applied Sciences, Germany), Dipl.-Ing. Martin Weischer (Münster University of Applied Sciences, Germany) and Dr.-Ing., Arq. Ruben A. Bancroft H. (Guest Professor at Fachhochschule Münster University of Applied Sciences, Germany, and Professor at Instituto Superior Politecnico Jose A. Echeverria La Habana, Cuba). However, on 5 February 2015, in cooperation with the Faculty of Civil Engineering, the seminar “Construction Cost Estimates and Prices at Tenders. Construction Law and Binding Regulations of the Cabinet” was organized.

On 23 October 2014, within the framework of the informative campaign “Live Warmer”, the seminar “Insurance in Construction and Renovation of Housing” was held at Riga Technical University (RTU). Not only students of the Master study program, but also parties involved in the implementation of renovation projects of apartment houses were invited to participate in the seminar.

On 12 February 2015, a visiting lecture of Ernestas Beržanskis, CEO of Ltd. Intelligent BIM Solutions (Lithuania) was held. The lecture was in English. The first topic of the lecture was BIM Concept, the second – BIM in Construction and the third – BIM Collaboration, Management.

A field trip to the exhibition “Meet Wood!” in premises of the Mežaparks Great Bandstand was organized for students of the Master professional study program “Civil Construction and Real Estate Management”. During the excursion, students became familiar with the most popular tree breeds in Latvia, the process of growing trees and its development in Latvia, as well as various construction materials and products made of wood.

On 2 June 2017, the cycle of open lectures “Spotlights in Construction Business and Real Estate Management” was held for students of the Master study program and other interested persons, where members of the academic staff – Prof. I. Geipele, Assistant Professors S. Geipele and G. Actiņa presented their research results on pressing issues of the industry.

On 22 December 2016, within the framework of the study course “Investments in Real Estate Development”, a visiting lecture of expert from the world’s leading company in commercial real estate services Colliers International Deniss Kairans was organized. During the meeting, discussions were held on the essence and trends of investments in real estate from a professionally practical viewpoint. On 3 December 2016, within the framework of the same study course, a visiting lecture of Director of the Department of Assessment of the commercial real estate services enterprise Colliers International Jānis Ozols “Real Property Valuation: Brief Intro” was held. During the meeting, discussions were held on investment and valuation issues in real estate from a professionally practical viewpoint.

In December 2016, the ICEREE, jointly with the RTU Foreign Students Department, arranged a cycle of lectures for students of the Master study program from L.N. Gumilyov Eurasian National University, Astana, Kazakhstan. The lecturer of the cycle of lectures, the ICEREE Research Assistant Aleksandrs Švaikovs (former graduate of the program) acquainted Kazakh students with the construction process in Latvia, risks and their elimination possibilities and many other issues related to the construction industry.

These students, who had a 10-day internship in Latvia, not only listened to the course of lectures organized by our institute, but also attended Latvian companies, e.g. SGS Latvija, JSC Sadales tīkli, etc.

On 8 December 2016, the Master professional study program “Civil Construction and Real Estate Management” arranged an educational trip for foreign students to Latvia’s largest waste processing enterprise “Getliņi EKO”.

In September 2017, in cooperation with students of the Department of Geomatics of the RTU Faculty of Civil Engineering, a visiting lecture “Near-field Spacecraft VLBI Tracking in the Context of Space Geodesy” was conducted by professor Leonids Gurvits from Delf University of Technology, the Netherlands.

The same September, visiting lectures were conducted for students of the study course “Management of Building Construction Projects” and “Planning and Organization of Building Construction” by the guest lecturer from Poland Dr. Sc. ing. Andrzej Czemplik (Wroclaw University of Science and Technology, Faculty of Civil Engineering).

Within the framework of the study course “Management of Ecology Systems”, a cycle of visiting lectures was held “Introduction to Management of Growth and Development. Models of Economic Growth and their Empirical Applications. Technological Change, Sources of Income and Growth Differences across Countries. Management Tools of Growth and Development. Key Empirical Issues in Management of Growth and Development” by the guest lecturer Olha Prokopenko from the University of Bielsko-Biala, Poland.

Representatives of public limited liability company Rossijskaja Ocenka (Russia) and the accredited member of the American Society of Appraisers Vadim Gorbatov held a two-day course of lectures on the subject “Approaches to the Evaluation of Machinery, Equipment and Vehicles: Cost, Comparative (Market) and Profitable”.

Ltd. Latio and RTU ICEREE organized the first Appraiser Summer School, held on 21–24 August 2018. The aim of the Appraiser Summer School was to attract young people to the profession of real estate appraiser, especially in Latvian regions. One graduate of the Master study program also participated in it.

Like every year, also during that academic year, an educational trip to Latvia’s biggest waste processing enterprise “Getliņi EKO” was arranged for foreign students of the Master professional study program “Civil Construction and Real Estate Management”.

In December 2017, students of the program participated in the open lecture “Historical and Economic Aspects of Heating in Construction and Real Estate Management” by Assistant Professor A.Kundziņa.

In 2018/2019 academic year, students were provided with an opportunity to attend the Z-Towers facility on a training trip guided by Assistant Professor K. Fedotova and Research Assistant Iveta Stāmure, where staff of the management department told students about the specific features of the facility management.

In October 2018, students of the Master study program “Real Estate Management” from the University of Lucerne, Switzerland, jointly with students of the Master study program “Civil Construction and Real Estate Management” at RTU had an intensive study course “Real Estate Intensive Riga 2018”, where lectures on real estate development were conducted and training trips to construction and real estate development facilities were arranged.

In December 2018, Professor Ineta Geipele and Research Assistant Iveta Stāmure organized a training trip to facilities under management of Ltd. CDzP in Riga, Sigulda and Cesis. Students were provided with an opportunity to get familiar with operation of the company and different objects of management, to communicate with the staff of the company and residents of the inspected objects.

The mission of the Master professional higher education study program “Civil Construction and Real Estate Management” is to ensure internationally competitive high quality scientific research, tertiary education, technology transfer and innovation for Latvian national economy and the society and to educate and train high-quality professionals demanded and competitive on the international

labor market in the construction and real estate sector.

RTU vision: Riga Technical University – a modern and prestigious University, internationally recognized as the leading university of science and innovation in the Baltic States – a cornerstone of the development of Latvia.

The vision of the study program is pursued taking into account views of students, employers, professional organizations and regional interests and is in line with the RTU mission and vision, aims and tasks.

A person engaged in construction business and real estate development – through engineering and economic valuation, management and maintenance, development, investment attraction, etc., must be competent in all matters related to acquisition of engineering and technological knowledge in the fields of construction and energy, with administrative management, administration, maintenance, use of property, valuation, accounting and other forms of bookkeeping, compliance with legal norms, housing, taxation, labor legislation, commercial activity – performance of contractual obligations in provision of public utilities, rental, lease, insurance contracts, physical management of property – rehabilitation, restoration and preservation of a real estate, an apartment, a house, a land plot.

The study program is a program open to cooperation, with account of aims and objectives of tertiary education, as well as regional and national interests related to the needs of students and employers.

The study process is organized in such a way that the subjects of student training and research work include topics relevant to the sector. The study program is supplemented and updated in the course of its implementation on the basis of labor market studies and consultations with employers and practitioners.

Employers' representatives regularly take part in the work of the Graduation Paper Defense Committee to evaluate students' knowledge in the study program. By participating in Thesis Defense Commissions, industry representatives are able to make suggestions on student research topics that are relevant to the labor market and are also taken into consideration in other academic years.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The Master professional study program “Civil Construction and Real Estate Management” is implemented through lectures, practical classes, trips to enterprises, as well as through independent studies, by learning the basics of real estate management and construction, and the relationship between this sector and other sectors of the national economy.

All study courses included in the study program are related to its aims and tasks, as well as the learning outcomes. Upon completion of the study courses, students must obtain the knowledge, skills and competences set by the occupational standards.

When analyzing the aims of the study program, the link between the learning outcomes and the information included in the study courses, the learning outcomes, the set aims and other indicators and their compliance with Cabinet Regulation No. 512 adopted on 26 August 2014 "Regulations on the State Standard of Second Level Professional Higher Education", it can be concluded that:

- The strategic aim of the study program is developed in such a way as to ensure professional studies relevant to the economic, cultural, national defense and security, as well as social needs, based on theoretical grounds of the branch sciences, complying with the occupational standards and applicable in practice;
- The content of the study program ensures the aggregate of knowledge, skills and competences in conformity with level 7 of the framework specified in the Latvian education classification regarding knowledge, skills and competence. The main parts of the program are study courses; internship beyond the educational institution (further in the text – the internship); state examination, the constituent part of which is the development and public presentation of the Master Thesis;
- The tasks of the study program are set in such a way as to educate students by ensuring acquisition of the professional qualifications of the fifth level (6 EQF) of real estate appraiser or construction cost engineer (7 EQF) and to promote their competitiveness in the changing socio-economic conditions and on the international labor market.

The assessment principles of the study program are in conformity with the principles specified in the state education standard:

- Positive achievements are summed up.
- Assessment is mandatory upon the completion of each course.
- Openness and clarity of the requirements: examination requirements are available at the program administration or the academic staff to all who are interested and are explained accordingly at the beginning of each study course.
- Diversity of the types of testing – tests, study papers, independent work, presentations at seminars, assessment tests, examinations (oral, written, containing practical tasks), public presentation of the internship, public presentation of the Master Thesis, etc.

In order to ensure that the results of the study program are achieved during the study process, students are presented with the aims, tasks and learning outcomes, as well as the assessment rules, both at the beginning of the studies at year 1 and at the start of each course.

The requirements of occupational standards (real estate appraiser and construction cost engineer), upon their evaluation at the Council of Construction Industry Experts, are included into the construction industry qualifications structure, thereby increasing the responsibility of workers in the construction sector towards customers – owners of buildings and structures and apartment owners. Consequently, additional amendments and supplements to the descriptions of the study courses will be introduced.

The system of studies is formed in conformity with the Education Law, the Law on Institutions of Higher Education and the Vocational Education Law, in order to maximally contribute to achievement of the set aims of the study program and facilitate the achievement of its objectives. The system of studies in higher education is regulated internally by documents stipulating student-university relations and by regulatory documents on the process and organization of studies that are available at the program administration and also virtually at the RTU website.

The content and extent of the examinations correspond to the content specified in the syllabus of the respective study course and to the skill and knowledge requirements of professional qualifications. All conditions for obtaining credit points are described in the syllabus of each study

course.

The study program is formed in conformity with Cabinet Regulation No. 512 adopted on 26 August 2014 "Regulations on the State Standard of Second Level Professional Higher Education" and the RTU Senate decision adopted on 23 March 2015 "On Unified Requirements to Study Programs at Riga Technical University". The comparison is available in Annex 6.

The aims of the program to be accredited are set in accordance with the national education standard.

The content of the program to be accredited is set in accordance with the national education standard. The main parts of the program are as follows:

- study courses;
- internship beyond the educational institution (further in the text – the internship);
- state examination, the constituent part of which is the development and public presentation of the Master Thesis.

The compulsory content of the study courses contains the courses that provide for a profound knowledge of the latest achievements in theory and practice of the branch (field of professional activity), research, creative work, design and management study courses, internship and the Master Thesis. There are also study courses included that ensure attainment of professional competence in entrepreneurship (innovations, enterprise organization and establishment, management methods, fundamentals of project design and management, record keeping and financial accounting system, knowledge of the legal framework for employment, including social dialogue in society, as well as knowledge of other innovations in administration of business or institutions), unless such have been acquired at a lower-level study program.

Students of the professional Master study program conducted in English are offered only two options for implementing the program – in the amount of 60 CP and 100 CP, allowing them to obtain a professional Master degree in civil construction and real estate management or a professional Master degree in civil construction and real estate management with the qualification of real estate appraiser. The qualification of construction cost engineer currently cannot be offered to foreign students, as the regulatory framework for the construction sector in world practice differs from that of Latvia. In order to enable such a qualification to be granted in the future, negotiations have been started on international accreditation of the study program at ARELLO and IDECC.

The amount of the program to be accredited and its structural distribution are set in conformity with the national education standard. The amount of the program and the study courses is expressed in credit points.

The core assessment principles of the study program are in conformity with the principles specified in the state education standard:

- Positive achievements are summed up.
- Assessment is mandatory upon the completion of each course.
- Openness and clarity of the requirements: examination requirements are available at the program administration or the academic staff to all who are interested and are explained accordingly at the beginning of each study course.
- Diversity of the types of testing – tests, study papers, independent work, presentations at seminars, assessment tests, examinations (oral, written, containing practical tasks), public presentation of the internship, public presentation of the Master Thesis, etc.

The content and number of tests and examinations are in compliance with the set curriculum of the respective study course and the requirements to the professional qualification skills and knowledge.

All terms and conditions for acquiring credit points are described in the curriculum of each study course.

Upon completion of the higher professional education Master study program “Civil Construction and Real Estate Management”, a Master professional degree in civil construction and real estate management is granted, as well as, depending on the previous education, the professional qualification of real estate appraiser or construction cost engineer is awarded.

Real Estate Appraisal Occupational Standards are approved with the resolution of the Ministry of Education and Science No. 29 adopted on 14 November 2006. The content of the Bachelor study program is set in accordance with the standards and fulfilling their requirements. In June 2014, Real Estate Appraisal Occupational Standards were reapproved.

Real Estate Appraisal Occupational Standards and Construction Cost Engineer Occupational Standards were approved by Cabinet Regulation No. 579 adopted on 30 September 2014 (Minutes No.51, Paragraph 12). <http://likumi.lv/doc.php?id=269253>

The content of the higher professional education Master study program “Civil Construction and Real Estate Management” is set in accordance with these standards and fulfilling their requirements. The content of the compulsory parts and the limited-choice parts of the study program complies with the requirements of the occupational standards.

At the start of their studies, students receive brief informative materials containing the most important information for them on the organization and practical implementation of the studies.

Study program parts	Option 1		Option 2		Option 3		Option 4	
	CP	% of the total amount	CP	% of the total amount	CP	% of the total amount	CP	% of the total amount
Compulsory part	10	16.67	20	20	20	20	10	25
Compulsory elective part	24	40	34	24	24	24	4	10
Internship	6	10	26	26	26	26	6	15
Master Thesis	20	33.33	20	20	20	20	20	50
Total:	60	100	100	100	100	100	40	100

To fulfil the Latvian national economic policy goals, the new labor market needs such an education and employment policy that would ensure the full use of human resources, thereby creating a productive base for economic growth.

The content of the studies is reflected by the curriculum of each study course. The content of study courses of the study program “Civil Construction and Real Estate Management” is reviewed once a year for updating the content of the study courses, with account of changes in the industry and the economy, and this is anticipated by the curriculum of each study course.



Development trends in the real estate and construction sector worldwide and Latvia have identified the need to foresee introduction of relevant changes in each study course and the internship program to improve and develop them in line with the requirements of the real estate market and the development of the construction industry.

In academic year 2015/2016, the content of the Master professional study program “Civil Construction and Real Estate Management” was updated and changes were approved. All study courses of the study program were reapproved in conformity with internal orders issued by RTU.

At the start of their studies, students receive brief informative materials containing the most important information for them on the organization and practical implementation of the studies.

In academic year 2017/2018, mapping was performed with the analysis of the interaction between the aims set in the descriptions of all courses and the learning outcomes to be achieved with the requirements of the occupational standards and the aims of the study program. The analysis of this matrix allowed crystallizing the issues in the study course descriptions that needed to be improved. When presenting the developed matrix or mapping, recommendations were received allowing for improvement of the study courses.

The academic staff whose study courses are included in the study plans for the autumn or spring semester of a given academic year in all full and part-time studies of the highest level study program place calendar plans of their study courses in the ORTUS e-environment, where they include topics for all lectures, practical works, practical classes, etc., as well as conditions for successful assessment for the respective study course, describing all requirements to be fulfilled by a student in order to obtain a successful assessment for the course acquisition (for example, information on the planned tests and tasks for independent work, criteria for admittance to the examination and other information on the requirements that may affect the assessment of a student's work).

When developing and implementing study courses, in order to ensure the interaction between the knowledge, competences and skills acquired by graduates, a particular emphasis is given to the following:

- presentation of current problems in the content of the study program (at the level of lectures and practical classes), including analysis of topical problems of collaborative enterprises of the study program and provision of solutions within the limits of the specific content of the course;
- use of modern teaching methods (solutions for specialized data programs, use of common solutions algorithm, solution-oriented methods, etc.);
- the integrity of the study course and the study program, i.e., by developing a cross-curricular learning approach (e.g., a cross-curricular learning approach by using concept mapping and mind mapping, etc.);
- improvement of study methods in cooperation with foreign experts (for example, University of Lucerne) for distance learning by using ORTUS – e-study environment of Riga Technical University (RTU).

Individual approach to students is ensured adopting the following means:

- learning aids are provided as either handouts, electronic materials or presentations;
- if necessary, lecturers plan individual meetings and tutorials for the students, because all lecturers have certain tutorial times, which students can get familiarized with at the first lecture, tutorial times are also available on [buni.rtu.lv](http://buni.rtu.lv) and [ievf.rtu.lv](http://ievf.rtu.lv);

- individual approach is ensured through selection of applied teaching techniques, analysis of individual topics and problems during the lectures, practical classes, laboratory works and workshops;
- when choosing the themes for the qualification papers, student wishes and work specifics in the chosen field of specialization are taken into account;
- intense and regular communications is maintained through e-mail, ORTUS, and home page.

The aim of the study program meets Level 7 of European Qualifications Framework (EQF) and is achieved in the process of its implementation.

In the course of the program implementation a two-way feedback is ensured. Students receive regular feedback from the instructors on the submitted tests, course, exam and study projects, reports, internship reports and presentations. In their turn, at the end of the study course the academic personnel can organize a survey concerning student satisfaction with the curriculum, their wishes, as well as to receive their proposals.

In academic year 2014/2015, the Master professional study program “Civil Construction and Real Estate Management” participated in the international Eduniversal rating of Master study programs already for the third time, having received excellent assessment. The Master study program “Civil Construction and Real Estate Management” implemented by RTU FEEM was ranked the 45<sup>th</sup> among the world’s 100 best programs of universities and business schools in the field of real estate management.

In academic year 2015/2016, the Master professional study program “Civil Construction and Real Estate Management” already traditionally participated in the international Eduniversal rating of Master study programs, having received excellent assessment – it was ranked the 35<sup>th</sup> among the world’s 100 best programs of universities and business schools in the field of real estate. In academic year 2016/2017, the program was ranked the 34<sup>th</sup> in the world.

In academic year 2017/2018, the Master professional study program “Civil Construction and Real Estate Management” participated in the international Eduniversal rating of Master study programs again, having received excellent assessment – it was ranked the 20<sup>th</sup> among the world’s 100 best programs of universities and business schools in the field of real estate management.

In academic year 2018/2019, the study program was already ranked the 18<sup>th</sup> among 80 best programs in the field of real estate management.

Eduniversal is a rating formed by the French rating agency and the consultancy company SMBG. It is an organization specializing in higher education and vocational orientation issues. Annually, it ranks 1000 best universities and business schools in more than 150 countries, as well as a global ranking comprising 4000 Master and MBA programs in 30 different specialization areas.

The goal of Eduniversal is to create a list of the best universities to help students choose the most appropriate university or business school in the world, based on the recommendations of recognized experts in education. Another major goal of the rating is to support and promote the mobility of students and academic staff.

In its ranking, Eduniversal has compiled the best higher education institutions participating in business and management education with different levels of reputation and ambition in nine areas of the world: East Asia, Eastern Europe, Africa, Central Asia, Eurasia and the Middle East, Latin America, Oceania, Western Europe and North America.

When analyzing the interrelation between the information included in the study courses, the intended learning outcomes, the set aims and other indicators, and their conformity to Cabinet

Regulation No. 512 adopted on 26 August 2014 "Regulations on the State Standard of Second Level Professional Higher Education", it can be concluded that they all are coordinated and interrelated.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study program is implemented full-time in Latvian and English and part-time in Latvian, uniformly complying with the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The course descriptions of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points do not depend on the implementation variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements, set in the program and in each course, in comparison with full-time studies, part-time studies have a longer program acquisition time and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in different types and forms of studies, the study courses differ only in the number of full-time (or contact hours) and independent work hours and the course teaching methodology or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role.

For example, study courses Strategic Marketing Management in Civil Construction and Management of Building Construction Projects, etc., using the principles of metacognition, students plan their activities according to their own set learning goals and independently manage their learning process, at the same time assessing themselves and their achievements, as well as analyzing what they have gained in the study course and the learning process in general. The study course Management of Ecological Systems uses situation analysis, analyzing the existing processes and problems, as well as developing current issues in the implementation of environmental protection requirements in the field of real estate.

Democracy and dialogue with the students, their active involvement in study process improvement are among the main principles practiced at the study programs implemented by RTU FEEM. Students take part in the study process improvement either directly, i.e. expressing their

suggestions to the instructor delivering a particular study course, the heads of the chairs, or the head of the program, or with the help of student self-government, whose representatives participate as members in the work of FEEM Council, RTU Senate and RTU Senate Committees, as well as the work of RTU Academic Assembly.

The administration of the study program considers that relations between FEEM and students are characterized with mutual confidence, respect and integrity, which support understanding, correct perception and develops ability to apply the gained knowledge.

To provide for compliance with the principle of democracy, once a semester, students evaluate the work of professors, assistant professors, lecturers and visiting lecturers by filling in an anonymous questionnaire in ORTUS system. RTU Study Department regularly organizes the polling of portal user and different kinds of surveys in ORTUS system, including two evaluations of the academic personnel performance during the academic year. Thus, students can provide their feedback on the quality of study courses and professional performance of the academic personnel. Survey questionnaires consist of questions concerning availability of study literature for each study course, evaluation criteria, working culture and quality, observation of student rights during the studies, time allocated for independent studies, and academic discipline. In the final part of the questionnaire students may express their suggestions and recommendation for improvement of the study course and the quality of the instructor's work. The questionnaires are completed anonymously, so that the provided answers could not influence instructor's attitude towards a concrete student or student group to ensure achievement of the aim – to receive objective assessment form the students. Nevertheless, it should be noted that not all students use this opportunity.

FEEM student self-government plays a major role in promoting cooperation among the students, academic staff and program administration; it actively participates in all processes mentioned above and conducts annual assessment of the academic staff. In order to honor the best instructors, the annual FEEM prize of honor has been established, which is a student organized event to evaluate the performance of the academic staff.

The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge, provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods as group work, case studies, seminars, discussions, field trips to industry companies and real estate objects in order to acquire and reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations are used.

In addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours.

By organizing study tours and study visits, the study program is linked to the specifics of the field, students acquire not only theoretical knowledge, but are able to relate it to everyday situations in real estate management companies, analyze problems and argue their opinion.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform,

is used for the implementation of the program. The students of the study program as well as the academic staff and visiting lecturers regularly use it. The portal provides the students with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student's knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, use interactive whiteboard and other audio / video and technical aids.

To achieve positive learning outcomes in the course the studies, students are familiarized with study aims, tasks and learning outcomes, as well as with assessment criteria both when commencing studies in the 1st study year and at the beginning of each study course. Students are timely informed about the assessment criteria of exams, tests and other assessment tests according to RTU Study Regulation.

Every study course description includes the summary break-down of total assessment.

The contents and volume of examinations comply with the curriculum of the study courses and the requirements towards professional qualification skills and knowledge. All conditions for credit point acquisition are stipulated in the syllabus of each study course.

The main principles of assessment of education results are as follows:

- the principle of summarizing positive assessments;
- the principle of compulsory assessment;
- the principle of clarity and transparency of assessment criteria;
- the principle of variability of assessment forms;
- the principle of testing availability.

#### **Assessment System of Reaching the Aims Set by the Master Study Program “Civil Construction and Real Estate Management”**

Aims	Assessment system
1. Graduate of professional studies must have knowledge in commercial law, real estate economy, investment in property development, economic management of construction projects, management of ecology systems, labor protection, commercial activity valuation, real estate marketing, real estate valuation theory to be used in daily work.	Questioning of students, results of examinations and tests

<p>2. Graduate of professional studies must acquire practical competences and skills:</p> <ul style="list-style-type: none"> <li>- skills in using different orders and regulations of the Cabinet, regulations and guidelines issued by the Ministry of Finance and the Ministry of Economics and their organizational units;</li> <li>- competences to use knowledge acquired in the course of studies and internship by developing study projects and Master Thesis;</li> <li>- competences to use respective software in solution and management of civil construction or real estate projects.</li> </ul>	<p>Assessment of study projects, internship reports and Master Thesis</p>
<p>3. Graduate of professional studies must be capable of:</p> <ul style="list-style-type: none"> <li>- understanding the goal of the problem solution, participating professionally in management and development of the project to be implemented, making the required cost estimates;</li> <li>- upgrading their professional knowledge continuously.</li> </ul>	<p>Polling and references of graduates of professional studies and employers</p>

The quality of the obtainable education is controlled by using polling of graduates, employers and students of the Master professional study program “Civil Construction and Real Estate Management”, results of examinations and tests, by assessing the performed study papers and projects, internship reports and Master Thesis.

The main forms of assessing acquisition of the program are an examination and test that have to be passed upon completion of each study course. The form of assessment is stipulated in the study program.

Assessment of the learning outcomes takes place in accordance with the Regulations on Assessment of Learning Outcomes ([https://www.rtu.lv/writable/public\\_files/RTU\\_1\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_1_studiju_rezultatu_vertesanas_nolikums.pdf)) [in latvian] and Regulations on Final Examinations at Riga Technical University ([https://www.rtu.lv/writable/public\\_files/RTU\\_nolikums\\_par\\_noslguma\\_prbaudjumiem\\_.pdf](https://www.rtu.lv/writable/public_files/RTU_nolikums_par_noslguma_prbaudjumiem_.pdf)). [in latvian] Teaching methods, structure of study courses and evaluation methods are selected by the academic staff responsible for the study course according to the specific nature of the course and the program, as well as the needs of students.

Training courses and seminars on the latest teaching and pedagogical methods are organized for the academic staff, professional advancement through attendance of various courses both at internal Faculty, RTU and international events is also promoted. RTU Centre for Academic Excellence organizes professional advancement events for academic personnel at the University level.

The specific assessment criteria for each study course must be presented by the academic staff to students at the first lecture. They are also published in the ORTUS e-study environment of the course.

Master Thesis is based on scientific research in the field of civil construction or real estate management, where a specific project is performed for choosing the most efficient project for investment in the field of real estate or construction industry, substantiated by predetermined forecasts for trends in the construction sector and real estate market development; or an economically evaluated project related to aspects of a real estate transaction, maintenance, appraisal or management of a construction enterprise by using areas of activity of local governments, state institutions, financial and insurance areas, commercial companies, non-governmental, international and national organizations.

To improve the knowledge and resolve unclear issues all involved academic personnel offer tutorials. The time table of tutorials of each instructor is available on the home pages of Riga Technical University, the Faculty of Engineering Economics and Management and/or the Institute of Building Entrepreneurship and Real Estate Economics, as well as at the appropriate (responsible) organizational units.

The State Examination Commission assesses the research developed by students of the Master study program related to civil construction, real estate economy and management.

The State Examination Commission of the Master professional study program of the Institute Civil Engineering and Real Estate Economics emphasized the high quality and efficiency of the Master Theses, both in improving the energy efficiency of buildings and in their management and administration, as well as in reflecting possible ways of reducing construction costs, etc.

The principles of student-centered education are taken into account in the implementation of the whole study process.

### 1. Students' involvement in the study process and content improvement

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

### 2. Learning outcomes

The assessment of the study courses of the program and the number of credit points are related to the learning outcomes and the students are informed about these learning outcomes. The lecturers associate the results of the course with the results of the study program, as well as argue the necessity of acquiring the information of this course in order to acquire the profession of house manager.

Exam and credit test are the main forms of assessment of program outcomes, which should be taken at the end of each study course. The form of assessment is specified in the description of the certain study course. The form of examination is defined in the study program. Assessment of learning outcomes is performed according to the Regulation on the Assessment of Learning Outcomes

([https://www.rtu.lv/writable/public\\_files/RTU\\_1\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_1_studiju_rezultatu_vertesanas_nolikums.pdf)) [in latvian] and the Regulation on Final Examinations at Riga Technical University ([https://www.rtu.lv/writable/public\\_files/RTU\\_nolikums\\_par\\_noslguma\\_prbaudjumiem.pdf](https://www.rtu.lv/writable/public_files/RTU_nolikums_par_noslguma_prbaudjumiem.pdf)) [in latvian].

### 3. Mobility

Mobility resources are used in the study program to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; A 3-hour lecture "Practical Aspects of Building Construction Business: Latvia and Lithuania" was conducted by Jurga Naimaviciene and Loreta Kanapeckiene from Vilnius Gediminas Technical University (Lithuania) in cooperation with the Latvian company "Transparence" Ltd within the study course "Practical Aspects of Building Construction Business".

Within the study course "Management of Ecological System", the cycle of lectures "Introduction to management of growth and development. Models of economic growth and their empirical

applications. Technological change, sources of income and growth differences across countries. Tools of management of growth and development. Key empirical issues in management of growth and development” was conducted by the visiting lecturer Olha Prokopenko from University of Bielsko-Biala (Poland), thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers.

#### 4. Social dimension

The study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey, which indicates that almost 95% of students work through the studies. Similarly, full-time students have the opportunity to switch to part-time study if necessary, to combine study and work. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

#### 5. Teaching and learning methods

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed, group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other. Study tours and guest lectures are also held regularly. Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype, Whatsapp etc.

#### 6. Learning environment

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory and research Laboratory for Building Entrepreneurship and Real Estate with various databases during their research process.

#### 7. Development of competences of the academic staff

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Pedagogical methods, the structure of the study courses and assessment methods are chosen by the responsible instructors in accordance with the curriculum of the study course and program specifics, as well as the needs of students.

Training courses and seminars on the latest teaching and pedagogical methods are organized for the academic staff, professional advancement through attendance of various courses both at internal Faculty, RTU and international events is also promoted. RTU Centre for Academic Excellence organizes professional advancement events for academic personnel at the University level.

Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods. In the framework of the international ERASMUS + project Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020,, the lecturers are involved in the development of new study courses, sharing experience in the use of study methods, materials and programs in European universities.

#### 8. Extra-circular activities



The program management supports the student self-government and encourages students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning.

Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. The student scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses are published.

Students have the opportunity to participate in the annual RTU International Scientific Conference.

Student-focused education envisions active involvement of students in lecture activities applying various teaching methods (discussions, practical tasks), which in their turn support equality among students and members of academic staff. These processes are implemented by the academic staff at their study courses, for instance, seminars are conducted at the study course "Real Estate Economics", where students present their topics from the lecturer's place. Other lecturers use group work actively during practical classes, where team responsibility of students is formed for the performed work.

Academic achievements of students of the study program are different. The average assessment of academic achievements of full-time students in the 1st year of studies varies in a wide range. This stems from differing level of student background knowledge

#### **Academic Achievements of Students**

<b>Academic Year</b>	<b>Form of Studies</b>	<b>Semester</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
2016/2017	Full-time	Autumn	86	100	x
2016/2017	Full-time	Spring	76	100	x
2016/2017	Part-time	Autumn	66	85	100
2016/2017	Part-time	Spring	70	90	100
2017/2018	Full-time	Autumn	75	90	100
2017/2018	Full-time	Spring	80	95	100
2017/2018	Part-time	Autumn	80	75	100
2017/2018	Part-time	Spring	81	82	100

When analyzing the students' academic performance, it can be concluded that, compared to

previous years, the learning outcomes have increased, the attitude of students to studies has improved. Certainly, this is also the result of changes in the work style of the academic staff.

The study process is developed as an active process with involvement of students and it consists of lectures, seminars, discussions, case studies and practical tasks, individual and group work, including research, trips to enterprises and onsite classes, internship, guest lectures of industry representatives.

In March 2016, in cooperation with the Baltic-German University Liaison Office, visiting lectures "Green Cities and Green Buildings: Building Lifecycle Management" were conducted for students of the Master study program and the academic staff by Professor Martin Weischer from the University of Applied Science, Münster School of Architecture.

On 15 September 2015, in cooperation with the Association of Management and Administration of Latvia Housing (AMALH) and the Latvian Guild of House Managers, the seminar "Real Estate and Construction Developments, their Integration into the Higher Education Study Process" was held; whereas, in August, the annual, already traditional seminar organized by the Association of Management and Administration of Latvia Housing for professionals and students "Multi-apartment Housing Management and Housing Insurance in Germany, New Fire Safety Requirements at Multi-apartment Houses, Roof Repair Experience" was held.

In February 2016, in cooperation with the Faculty of Civil Engineering, the seminar "Construction Law and Binding Regulations of the Cabinet" was organized to assist students in development of their Master Theses.

Every year students of the program participate in RTU Student Scientific and Technical Conference with presentations related to their chosen field of studies and the specialization direction.

In academic year 2017/2018, 9 students of the program participated in the 58<sup>th</sup> Student Scientific and Technical Conference of RTU with presentations related to their chosen field of studies.

The study process is organized in such a way that the subjects of training and research papers include issues pertaining to the industry. The study program is supplemented and updated in the course of its implementation on the basis of labor market studies and consultations with employers and practitioners.

Recommendations of graduates, students and academic staff play an important role in improving the study process. Changes focus mainly on changing the learning style with "learning to study" and integrating information technologies into management decision-making. The study process also involves industry professionals and business representatives who provide specific knowledge and share experience within relevant subjects.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

It is stipulated in the Senate Resolution amended in 2019 on the Internship Management Procedure at RTU that an internship supervisor from the organizational unit helps students to find an internship place. Should any additional assistance be necessary, it is possible to apply to the Career

Support and Service Centre, where a career consultant and a project manager help students in finding an internship place and outreach, as well as promote development of career management skills with the help of different activities that can ensure acquisition of positive results during the internship.

Once a year the Career Support and Service Centre organizes RTU Career Day, when students also have an opportunity to meet in person representatives of companies and discuss future prospects.

An additional resource that has been used since 2015 is the home page, where companies are invited to allocate vacant jobs relevant for RTU students (<https://ekarjera.rtu.lv/>) [in latvian]. Students can login with their university user name and follow the up-to-date practices in their field and later monitor future job opportunities.

Additional support in development of practical skills is provided by RTU Development Fund (<https://www.rtu.lv/lv/attistibasfonds>) [in latvian]. Throughout the year, several hundred practical skill training competitions are organized in cooperation with companies, where students can acquire practical skills.

Internship is undertaken according to the Agreement on Internship, which RTU signs with an employer about an internship and a student. The Agreement on Internship stipulates the aim, tasks and the plan of the internship, procedure of internship achievement assessment, as well as responsibilities and liabilities of the parties. Defining the aims and tasks, the introduction to the management structure and principles of work of an appropriate internship company is added to the internship curriculum. Determination of internship aims and tasks, as well as internship assessment is done involving the representatives of the organization or company that signed the agreement on internship. Committees for public presentation of internship reports are established.

Close cooperation is maintained with companies, banks, organizations, institutions employing graduates of RTU Faculty of Engineering Economics and Management, who help to provide internship places for students.

The planned volume of internship depends on the awarded qualification:

Name, number of credit points	Options and total volume of the study program			
	60CP	100CP	100CP	40CP
Internship 6CP	x	x	x	x
Specialized Practical Placement – 20CP	-	x	x	-

Student internship places are provided by commercial companies that are members of professional associations.

The study program cooperates with companies that are part of FIABCI and professional industry organizations in Latvia.

The internship is organized in companies operating in the field of construction and real estate. There are two practice periods.

Internships are also provided for foreign students within the framework of concluded cooperation agreements. Foreign students do internships in various companies, for example, SIA Starlex, etc. Until now, all students have been provided with internships in accordance with the goals and tasks of the internship.

The main aim of internship is to provide and to support integration of student theoretical knowledge and practical work in order to assess the opportunities to use the knowledge acquired at the University in practice, as well as enhancement and development of professional skills and competences. During the internship, students get familiar with real estate management aspects in management, transactions management and appraisal.

During the internship, students develop internship reports according to the requirements of the internship program, as well as keep an internship diary. The internship report is drawn up during the internship. It should be submitted to the internship supervisor at the final stage of internship and publicly presented to the Internship Committee established at the Department of Building Entrepreneurship and Real Estate Economics and Management (BEREEM Department) within the terms specified in the semester plan.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

To fulfil the national economic policy goals, the new labor market needs such education and employment policy that ensures the full use of human resources, thereby creating a productive base for economic growth.

Upon completion of the studies, when developing the Master Thesis, a student is capable of using the theory, methods and problem-solving skills to perform research and highly qualified professional functions according to the degree and qualifications to be awarded. Master students are capable of explaining and discussing complex and systemic aspects of the industry and their professional field in a reasoned way. In the course of elaborating the Master Thesis, a new approach to the researched subject, methodology, its model or methodology, etc., are developed.

The Master Thesis is based on scientific research in the field of civil construction or real estate management, where a specific project is performed for choosing the most efficient project for investment in the field of real estate or construction industry, substantiated by predetermined forecasts for trends in the construction sector and real estate market development; or an economically evaluated project related to aspects of a real estate transaction, maintenance, appraisal or management of a construction enterprise by using areas of activity of local governments, state institutions, financial and insurance areas, commercial companies, non-governmental, international and national organizations.

When developing the Master Thesis, students of the Master study program are capable of using the theory, techniques and different problem-solving skills independently to perform research and highly qualified professional functions. Master students are capable of explaining and discussing complex and systemic issues of civil engineering, civil construction and real estate professional field in a reasoned way, as well as are able to perform work, observe succession in difficult and unpredictable circumstances and, when required, are able to transform them by applying new approaches.

In their Master Theses, students evaluate different industry-related issues, improve and create new concepts, new approaches, methods, develop models and methodologies. Students, in their Master Theses, are capable of improving processes involved in topical issues of the industry, are capable of developing systems and improving them. Master students can also develop relevant strategies for the industry in their works, for example, in academic year 2018/2019, the following subjects of Master Theses were developed and publicly presented:

- Opportunities for the Development of Green Public Procurement within Construction Sector in Latvia;
- Deficiency and Substantial Effects of Transformation of the Real Estate Market in Longer Term;
- Project Quality Management System and Implementation of Innovative Solutions for Sustainable Civil Construction and Real Estate Management Environment;
- BIM and GIS Use for Efficient Real Estate Management;
- The Management of Wooden Buildings with Cultural Heritage Value in Jūrmala;
- Methodology for Drawing up a Budget for Efficient Management of a Residential Building;
- Construction Project Management Issues and Improvement Opportunities in Karnataka (India) and Other Subjects on Issues Topical for the Industry.

The state Examination Commission evaluates research developed by the Master study program that is related to different issues in civil construction, construction from the engineering-economic and managerial point of view, real estate economy and management.

#### Latvian students

Evaluations of students' final theses

		Final work evaluation (from 10-4 points)						
		10	9	8	7	6	5	4
2013./2014.	full-time studies	5	3					
	part-time studies	4	2	5	1	2	1	
2014./2015.	full-time studies	4	5					
	part-time studies	1	3	2	2			
2015./2016.	full-time studies	4				1	1	
	part-time studies	3	1					
2016./2017.	full-time studies	2	4	2	1			
	part-time studies	1	3	3	1		1	
2017./2018.	full-time studies	7	2	2	1	1		
	part-time studies	3	3	4	1			
2018./2019.	full-time studies	6	3	2	1			1
	part-time studies	5	3	1			5	

#### Foreign students

Evaluations of students' final theses

		Final work evaluation (from 10-4 points)						
		10	9	8	7	6	5	4
2013./2014.	Full - time studies							
2014./2015.	Full - time studies	1		2				
2015./2016.	Full - time studies	2	1		2	1		
2016./2017.	Full - time studies	2	1		1		1	
2017./2018.	Full - time studies		3	1	1			
2018./2019.	Full - time studies		3	4	3	1	2	2
Total :		5	8	7	7	2	3	2

Analyzing the results of the defense of master's theses, it must be concluded that there are high

indicators in the Latvian stream. In the study year 2013/2014 the average grade is 8.6, in the study year 2014/2015 - 8.94. In the 2015/2016 study year, the average evaluation of master's theses was 9. 2016/2017. in the study year the average grade was 8.44, but in 2017/2018. study year - 8.9. In the 2018/2019 academic year, the average grade was 8.29.

The rate is slightly lower in the flow of foreign students, where the language of instruction is English. In the 2014/2015 study year there were the first graduates of the study program. the average grade of their master's theses was 8.66. In the study year 2015/2016 the average grade was 8.16, but in the study year 2016/2017 the average grade was 8.2. In the 2017/2018 study year, the average evaluation of master's theses for foreign students was 8.4. The average evaluation of master's theses decreased in the study year 2018/2019, when 15 students graduated from the study program. their average rating was 6.93. It should be noted here that this group of students has an average level of English.

In academic year 2018/2019, the best Master Theses, i.e., "Project Quality Management System and Implementation of Innovative Solutions for Sustainable Civil Construction and Real Estate Management Environment" and "BIM and GIS Use for Efficient Real Estate Management", were nominated for the construction industry annual award.

The State Examination Commission of the Master professional study program of the Institute Civil Engineering and Real Estate Economics emphasizes the high quality and efficiency of the Master Theses, both in improving the energy efficiency of buildings and in their management and administration, as well as in reflecting possible ways of reducing construction costs, etc.

The State Examination Commission includes industry representatives with high professional qualification.

Students acquire research skills by working regularly with literature and the Internet resources to successfully develop different study projects, internship reports and Master Theses. This way scientific research of students is also promoted, work with international scientific databases available at the RTU library, with electronic access from the ORTUS environment, as well as the required information sources and materials for Master Theses are already summarized during internship in situ at companies.

Following public presentation of Master Theses, the State Examination Commission provides a report on the quality of the presented works, their topicality on the labor market and the average assessment of students. In the course of the public presentation of Master Theses, the respective Minutes are completed, where the questions and the obtained assessment are reflected.

The topics of Master Theses of students are topical, relevant to the objectives of the program, ensuring achievement of the learning outcomes and meeting the needs of the industry and scientific trends in the fields of construction and real estate management, as Master students are able to demonstrate in-depth and expanded knowledge and understanding of the latest findings in the field and provide a basis for creative thinking and research, not only in the industry, but also in the interaction of different areas.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

In the course of implementation of the study program, feedback on its quality is ensured regularly

from employers, students and graduates. Quality of the studies is assessed according to the obtained results of polling students, grades at tests and examinations, and methodological work reports.

Every year polling of the program graduates is also conducted. The results of the surveys reflect positive and improvement opportunities of the program implementation. Polling of graduates takes place in January and June, depending on the time of the final examinations.

In academic year 2013/2014, 19 out of 23 study program graduates completed the questionnaires. The polling results are summarized in the Table below.

**Student Survey Results in Academic Year 2013/2014, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	52.63%	42.11%	5.26%	0	0	0
2.	Satisfied with the acquired theoretical knowledge	42.11%	52.63%	5.26%	0	0	0
3.	Satisfied with the acquired practical skills	31.58%	31.58%	31.6%	5.26%	0	0
4.	Satisfied with the lecture rooms used for studies	42.11%	36.84%	15.8%	0	5.26%	0
5.	The majority of academic personnel posted materials in the e-learning environment	47.37%	36.84%	10.5%	5.26%	0	0

In academic year 2014/2015, 17 out of 18 study program graduates completed the questionnaires. The polling results are summarized in the Table below.

**Student Survey Results in Academic Year 2014/2015, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
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1.	Satisfied with the chosen study program	53%	42%	0	5%	0	0
2.	Satisfied with the acquired theoretical knowledge	50%	45%	0	5%	0	0
3.	Satisfied with the acquired practical skills	51%	30%	24%	5%	0	0
4.	Satisfied with the lecture rooms used for studies	70%	20%	5%	0	5%	0
5.	The majority of academic personnel posted materials in the e-learning environment	60%	25%	10%	5%	0	0

In academic year 2015/2016, 7 out of 10 study program graduates completed the questionnaires. The polling results are summarized in the Table below.

**Student Survey Results in Academic Year 2015/2016, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	53%	42%	5%	0	0	0
2.	Satisfied with the acquired theoretical knowledge	50%	45%	5%	0	0	0
3.	Satisfied with the acquired practical skills	51%	30%	24%	5%	0	0
4.	Satisfied with the lecture rooms used for studies	75%	15%	5%	0	5%	0



5.	The majority of academic personnel posted materials in the e-learning environment	60%	25%	10%	5%	0	0
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In academic year 2016/2017, 17 out of 18 study program graduates completed the questionnaires. The polling results are summarized in the Table below.

**Student Survey Results in Academic Year 2016/2017, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	60%	34%	3%	3%	0	0
2.	Satisfied with the acquired theoretical knowledge	61%	33%	3%	3%	0	0
3.	Satisfied with the acquired practical skills	51%	35%	10%	4%	0	0
4.	Satisfied with the lecture rooms used for studies	50%	30%	15%	0	5%	0
5.	The majority of academic personnel posted materials in the e-learning environment	60%	20%	15%	5%	0	0

The same way as annually, in academic year 2017/2018, the study program graduates were surveyed. In total, 18 questionnaires out of 24 were completed.

**Student Survey Results in Academic Year 2017/2018**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
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1.	Satisfied with the chosen study program	50%	33.5%	5.5%	5.5%	0	5.5%
2.	Satisfied with the acquired theoretical knowledge	40%	43.5%	0	5.5%	5.5%	5.5%
3.	Satisfied with the acquired practical skills	33.5%	28%	22%	5.5%	5.5%	5.5%
4.	Satisfied with the lecture rooms used for studies	49%	40%	5.5%	0	0	5.5%
5.	The majority of academic personnel posted materials in the e-learning environment	45%	44%	0	5.5%	0	5.5%

In academic year 2018/2019, the study program graduates were surveyed. In total, 19 questionnaires out of 27 were completed.

#### Student Survey Results in Academic Year 2018/2019

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	70%	13.5%	11%	0	0	5.5%

2.	Satisfied with the acquired theoretical knowledge	60%	23.5%	5.5%	0	5.5%	5.5%
3.	Satisfied with the acquired practical skills	59.5%	26%	4.5%	4.5%	0	5.5%
4.	Satisfied with the lecture rooms used for studies	60%	29%	5,5%	0	0	5,5%
5.	The majority of academic personnel posted materials in the e-learning environment	65%	24%	0	5.5%	0	5.5%

Overall, students evaluate the theoretical knowledge and practical skills acquired during the studies positively. However, there are students that are not satisfied with the studies. During the enhanced evaluation, it was revealed that some students were not interested in the acquired qualification or education in the professional field.

Graduates mentioned that practical skills definitely should be developed more and that the study process should be more intensive; they would like more intramural classes and trips, as well as practical classes at enterprises. Among the program improvement recommendations, students mentioned:

- To review the content of the study courses, as in some courses the provided information is overlapped;
- More practice can be recommended;
- Classes that consist exclusively of practical works are appreciated by the students of the study program;
- Better preparation for lectures on the part of some academic staff members and invitation of lecturers that are capable of sharing their knowledge with others;
- To renew the academic staff, inviting visiting professors.

Each year and in different aspects the evaluation of the program, the study process, the acquired knowledge and practical skills on the part of graduates show the necessity to review the content of the study program and its implementation, which is also performed regularly. The administration uses all results obtained from the surveys for improving the study process.

The content of study courses has been revised to avoid content duplication.

There are more connections with the practice by inviting industry specialists when conducting lectures together with lecturers. The composition of teachers has been revised, inviting new and talented teachers, for example, N. Kočanovs in study course "Planning of Visual Environment in Real Estate", G. Actiņa in study course "Financial Management in Civil Construction", etc., to improve the quality of lectures.

Various trainings, seminars, in-service training courses are organized for lecturers, which allows to improve the quality of lectures. This information can be viewed on the CV of the academic staff.

Some study courses, in accordance with the recommendations of employers, are organized in close cooperation with companies, for example, "Investments in property development" are provided together with SIA Starlex.

Relations between students, academic staff and other employees in the study program are formed on the principles of cooperation, respect and responsibility. The principles of democracy are included in the program administration and taking decisions. Students are involved in the decision-taking process.

In the event of conflict situations, students usually apply with their questions to the academic staff, through record-keeping and administration of the study program. Up to now, all issues have been resolved on the level of discussions. Students may also talk to or submit complaints to the Dean of the Faculty or the Deputy Dean for Academic Affairs.

Democratic principles are observed in the management of the study program, the relationship between administration, academic staff and students is clearly defined.

Representatives of students participate also in the work of the ICEREE Council.

The RTU Golden Fund is established to extol the most prominent RTU graduates, informing the public about their achievements and promoting their career growth. In selection to the Golden Fund, not only the average grade of the graduate is taken into account, but also their public activities carried out during the studies, the success in research and participation in sport events. Candidates for inclusion in the RTU Golden Fund are nominated by study program directors in cooperation with the RTU Career Centre.

In academic year 2013/2014, two students were included in the Golden Fund, and in academic year 2014/2015, one student. Three graduates of the study program completed the studies with distinction. In academic year 2016/2017, one student was included in the Golden Fund of RTU graduates.

In academic year 2017/2018, three graduates of the study program were included in the RTU Golden Fund. All three graduates and another student completed the studies with distinction. Graduate of the English group of academic year 2017/2018 continued studies as the FEEM Doctoral student at the study program "Management and Economics".

In academic year 2016/2017, five foreign students graduated from the program.

In academic year 2018/2019, the 7 graduates of the study program were included in the RTU Golden Fund. In academic year 2018/2019, for the first time, a foreign student was included in the RTU Golden Fund. 3 students completed the studies with distinction.

In academic year 2016/2017, the study program was completed by six foreign students.

In academic year 2017/2018, five graduates received additionally the qualification of real estate economist. The study program this year was completed by five foreign students.

In academic year 2018/2019, the study program was completed by 15 foreign students.

The study program administration follows the achievements of the graduates also beyond the study process. The study program was completed by athletes as well, for example, the swimmer Olga Šišlova.

Student of the Master study program "Civil Construction and Real Estate Management" Aivars Graikstis received a certificate of gratitude from Inčukalns Region Council "Labais vairo labo" (*Good Creates Good*) for the work efficiency and contribution into the development of Ltd. Vangažu Namsaimnieks. With his work, within a year, he succeeded in convincing owners of 13 apartment houses of Gaujas Village of Inčukalns Region to choose management and administration services of Ltd. "Vangažu namsaimnieks", thus increasing areas under Ltd. "Vangažu namsaimnieks" management and administration by more than 10 000 m<sup>2</sup>."

In 2019, within the framework of the project "Dzīvo siltāk" (*Live warmer*), State Secretary of the Ministry of Economics Ēriks Eglītis has issued a certificate of gratitude to Chairman of the Board of "Ventspils nekustamie īpašumi" and student of the RTU FEEM ICEREE Master professional study program, as well as graduate of the previous level, i.e. the Bachelor professional study program "Real Estate Management" Valdis Lesiņš. Under his guidance, energy efficiency increase projects were implemented for 42 buildings in Ventspils during the previous planning period and 13 apartment houses are at different stages of the project implementation during the current planning period. Valdis Lesiņš is an enthusiastic defender of the energy efficiency idea, has made a significant contribution to increasing energy efficiency in Ventspils and has promoted residents' understanding of energy efficiency issues.

On 8 April 2019, President of the Republic of Latvia Raimonds Vējonis and the Chapter of Orders awarded the Order of the Three Stars of the Fifth Class for meritorious service on behalf of the Fatherland to student of the Master study program "Civil Construction and Real Estate Management" of the RTU FEEM Institute of Civil Engineering and Real Estate Economics Aivars Gailis and made him Bearer of the Order.

Quality of the studies is assessed according to the obtained results of polling of students, grades at tests and examinations and methodological work reports.

Relations between students, academic staff and other employees in the study program are formed on the principles of cooperation, respect and responsibility. The principles of democracy are included in the program administration and taking decisions. Students are involved in the decision-taking process.

In the event of conflict situations, students usually apply with their questions to the academic staff, through record-keeping and administration of the study program. Up to now, all complains have been resolved on the level of discussions. Students may also talk to or submit complaints to the Dean of the Faculty or the Deputy Dean for Academic Affairs. Conflict prevention, problem solution and coordination mechanisms have been established in the study program.

Democratic principles are observed in the management of the study program, the relationship between administration, academic staff and students is clearly defined.

Representatives of students participate also in the work of the ICEREE Council.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

In academic year 2013/2014, students of the program made use of the opportunities provided by the Erasmus program. Student Jafer Ali Feroz Khan studied for a semester at Humboldt Universität zu Berlin, Germany. Whereas, Aleksejs Smerdevs undertook internship at the German company engaged in civil construction and real estate management.

In academic year 2015/2016, within the framework of Erasmus+ program, student Raj Saifi studied for a year at Hochschule fur Technik Stuttgart, Stuttgart, Germany.

In academic year 2016/2017, within the framework of Erasmus+, the first-year student Agija Vērđiņa studied for a semester at KTH Royal Institute of Technology (Kungliga Tekniska Högskolan), Sweden.

In academic year 2017/2018, opportunities provided by Erasmus+ were used by three foreign students of the study program – Senthilvel Aravindh Kumar studied at KTH Royal Institute of Technologies, Sweden, Andrei Dobrodumov studied at Aalto University, Finland, and Ankit Mishra made use of the international internship opportunities.

All the students who used mobility opportunities, prior to going to the selected university abroad, coordinated the study courses to be acknowledged with the study program administration and completed the Erasmus form.

The Erasmus + after-studies mobility options were used by Rihards Šimkus, who undertook internship in Lithuania for half a year.

In academic year 2018/2019, student of the Master study program Anita Žimante undertook internship at the German management company.

The mission of the Baltic-American Freedom Foundation (BAFF) is “to strengthen links between the USA and Latvia, Lithuania and Estonia through education and exchange programs, focusing on economic growth and development of democratic processes. The Fund aims at developing links between the US and the Baltic States significantly.” The Baltic-American Freedom Foundation offers different grant and support programs for permanent residents of Latvia, Lithuania and Estonia.

The Professional Internship Program of the Baltic-American Freedom Foundation provides an opportunity for university students and graduates to go to the USA and have traineeship at leading American companies. Participants of the program can receive grants up to USD 30 000 a year, which are anticipated to cover accommodation, transport and health insurance costs. In 2015, Rihards Ģederts (the first-year student of the professional Master study program) received a grant of the Baltic-American Freedom Foundation for implementing the Professional Internship Program to extend knowledge at one of the leading American companies operating in real estate area. After his return from the USA, Rihards Ģederts became the owner and founder of Ltd. Urban Treetops.

In autumn of 2016, the second-year student of the Master professional study program “Civil Construction and Real Estate Management” Linda Šterna received the grant from the FIABCI Scholarship Foundation.

In the course of implementing the program, mutual feedback is provided regularly. Upon completion of the study course, the academic staff conduct polling on satisfaction of students with the content of the course and their wishes, as well as listen to their proposals.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and**

## Provision of the Study Programme)

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

RTU financing from the general state budget is formed by the basic financing of studies in accordance with the list of the study programs and the number of students, which covers utility fees, taxes, infrastructure maintenance costs (including data input in the Register of students and graduates), purchase of inventories and equipment, and remuneration, as well as financing of research activities.

The number of seats is approved after negotiations with the Ministry of Education and Science. Basic financing of studies from the state budget is awarded to full-time studies. The amount of basic financing of studies is defined based on the number of state budget-funded seats at RTU, as well as the basic costs of a seat set by the state and thematic education field study cost coefficients.

RTU financing for state budget-funded seats in the appropriate academic year is allocated according to the procedure set in RTU Senate Resolution "On the Methodology for Allocation and Application of Basic Budget, Performance-Based Funding and Tuition Fees to RTU Units" in the appropriate academic year. This methodology is reviewed and approved in a new edition every year, taking into account the necessary changes.

RTU has decentralized budgeting and each organizational unit plans its own budget. Broadly speaking, budget is an income and expenditure plan for a certain period of time, work, activity or function. RTU incomes and expenditures are managed either according to the principles approved by the Senate or as determined by the authorized Vice-Rector for Finance.

- According to the Methodology, financing to organizational units is distributed either for a financial or budget year or immediately after financing has been received. Financial or budget year for RTU organizational units lasts from October to September of the next year, calculation and allocation of financing is made for this period of time;
- Subsidy or basic financing (state budget-funded seats) is allocated as a monthly limit – an organizational unit is monthly granted 1/12 of the financing calculated for a year;
- Fee-based student financing (tuition fees, including the payment for the settlement of academic arrears) is allocated twice a year (in October and in April) as a monthly limit – an organizational unit is monthly granted 1/6 of the calculated semester financing;
- Performance-based financing (research support funding) is granted as a monthly limit, an organizational unit is monthly granted 1/12 of the financing calculated for a year;
- Research base financing (research support funding) is granted as a monthly limit – an organizational unit is monthly granted 1/12 of the financing calculated for a year.

Analyzing the general procedures of financing study programs at RTU it may be noticed that in case of basic budget and financing received from local fee-paying students for a long time have been

defined according to the basic principles defined by the state. In the process of definition of the volume of financing both thematic education field study cost coefficients and study cost coefficient values according to the study program level are taken into account, as well as the number of students at the study program and at the respective study courses therein. As mentioned above, using thematic education field study cost coefficients it is possible to define the volume of financing necessary for a certain study program and study course. RTU Senate has ruled that further thematic education field study cost coefficients will be applied individually to each study course within the study program, thus providing even more relevant volume of financing for implementation of study courses within the study program. To integrate this system, an expert committee was established by the Order of the Vice-Rector for Academic Affairs, which defined the thematic field for each study course.

The actual costs of the study program “Civil Construction and Real Estate Management” are as follow:

	Subsidy, EUR	Tuition fee by local students, EUR	Tuition fee by foreign students, EUR	Total funding for the program, EUR	Cost of state budget funded seat, EUR
2013/2014	0.00	53952.00	0.00	53952.00	3419.00
2014/2015	7575.81	40285.69	0.00	47861.50	3419.43
2015/2016	39158.33	43890.47	7391.87	90440.67	3419.43
2016/2017	42783.86	45358.03	51149.86	139291.75	3419.43
2017/2018	38132.53	63834.87	69142.38	171109.78	3573.89
2018/2019	28045.05	77263.41	95361.60	200670.06	3741.08

Foreign students brought their financial contribution to the study program in the amount of EUR 69142.38 in academic year 2017/2018 and EUR 95361.60 in academic year 2018/2019. Revenue from foreign students is increasing each year, as the number of students at the study program is growing.

Financial resources of the study program are sufficient for its implementation. The usage of the resources is controlled regularly both on the part of the administration and on the part of the RTU Office of Vice-Rector for Finance.

The study process is fully provided with the latest learning aids, which students can borrow from RTU Central Library either using study book circulation tickets or using the aids throughout the whole period of studies. RTU students and academic personnel have access to a large and modern RTU Scientific Library (Kipsala, 5 Paula Valdena Street), where they can use both all kinds of educational literature, electronic subscription databases, as well as short-term trial databases. Working hours of the reading rooms of the library for RTU students work on 24/7 basis, because round-the-clock reading rooms of RTU Scientific Library are the place, where students can study late at night, outside the Library or Faculty working hours.

Students can use the services offered by RTU Library (<http://www.zb.rtu.lv/>). They have also



resource rooms at their disposal, where they can get familiarized with the latest periodical publications, statistical materials, books, conference proceedings concerning the industry's most relevant updates. FEEM has established a free access library where students can borrow a publication of interest, having returned it back afterwards.

To intensify the study process, students have constant access to the joint RTU study support system "ORTUS". For the moment "ORTUS" provides students with:

1. Lecture handouts and presentations;
2. Automatic video records of classes;
3. Study process related regulatory documents and amendments thereto;
4. Remote authorization of students in commercial electronic information sources (Databases);
5. Electronic processing of tests and home works;
6. Information on student academic performance;
7. Information on student finance, with an option of electronic invoicing;
8. Online check in/check out for the study courses in the following semester.

To supplement the range of sources of information and to update the accessible scope of publications in the library, the study program administration has purchased some new publications. The table below summarizes the information about the spent amounts and the number of library copies.

Year	EUR	Number of copies
2018	500.51	8
2017	969.94	13
2016	1258.98	4
2015	1218.88	9
2014	1437.44	7
2013	1362.18	37

The following publications have been acquired for insuring the library resources of the study program:

1. Auziņš, Armands. Zemes izmantošanas novērtēšana un pārvaldība: zinātniska monogrāfija [*Land Use Appraisal and Management: scientific monograph*]/ Armands Auziņš; reviewers: Velta Paršova, Marija Burinskiene, Siim Maasikamäe; [scientific editor Ineta Geipele; responsible for the issue Anita Vēciņa; editor Inga Skuja]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Publishing House, 2016. 270 p.
2. Freibergs, Jānis. Nekustamo īpašumu vērtēšanas teorija un prakse: mācību grāmata [*Theory and Practice of Real Estate Valuation: Textbook*] / Jānis Freibergs, Vilis Žuromskis. Riga: RaKa, 2013. 347 p.
3. Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā : zinātniskā monogrāfija [*Management System of Real Estate Market Development in Latvia: scientific monograph*] / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible for the issue Natālija

- Čina; editor Lilita Vīksna ; author of the cover Sanda Geipele]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p.
4. Judrupa, Ilze. Latvijas reģionu konkurētspējas novērtēšana: zinātniskā monogrāfija / [*Assessment of the Competitiveness of Latvian Regions: scientific monograph*] Ilze Judrupa, Maija Šēnfelde; reviewers: Dr.oec. Andrejs Čirjeviskis, Dr.oec. Roberts Škapars, Dr.oec. Alise Vītola; scientific editor Dr.oec. Ineta Geipele; literary editor Inga Skuja; cover design: Baiba Lazdiņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of the Territorial Development, Management and Urban Economics. Riga: RTU Press, 2018. 150 p.
  5. Kadastrs: no viduslaiku nodevu saraksta līdz modernai informācijas sistēmai un daudzfunkcionālam kadastram [*Cadaster: From a Medieval Fee List to a Modern Information System and a Multifunctional Cadaster*] / [authors: Maija Bērziņa ... [et al]]. Riga: State Land Service, 2013. 311 p.
  6. Kopā un atsevišķi: daudzdzīvokļu namu arhitektūra Latvijas ekonomiskajā, politiskajā un sociālajā ainavā [*Together and Separately: the Architecture of Multi-apartment Buildings in Latvia's Economic, Political and Social Landscape*] / edited by Matīss Groskaufmanis and Evelīna Ozola; drawings: Ludo Groen, Matīss Groskaufmanis, Evelīna Ozola; translations: Vilis Kasims, Jūle Mare Rozīte; photos: Reinis Hofmanis; comics: Sander Ettema. Riga: FOLD in cooperation with the New Theatre Institute of Latvia, [2019] 239 p.
  7. Nekustamais īpašums Latvijā: 1991-2012 [*Real Estate in Latvia: 1991-2012*] / [Aivars Kļavis ... [et al]]. Riga: Latio, 2013. 384 p.
  8. Nekustamais īpašums un ekonomikas attīstība: zinātnes un prakses sinerģija: zinātniskā monogrāfija [*Real Estate and Economic Development: Synergy Between Science and Practice: scientific monograph*] / edited by Sanda Geipele and Raja Kočanova; reviewers: Tālav Jundzis, Namejs Zeltiņš, Maira Leščevica; literary editor Inga Skuja; cover design: Paula Lore; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2019. 239 p.
  9. Pilsētu loma Latvijas tautsaimniecībā: 2014. gada 16. aprīļa zinātniskā semināra materiāli [*Role of Cities in National Economy of Latvia: materials of the scientific seminar of 16 April 2014*] / [literary editor Silvija Minkevica; cover design Jekaterina Ribajeva] ; Riga Technical University. Faculty of Engineering Economics and Management. Department of the Territorial Development, Management and Urban Economics. Riga: RTU Press, 2014. 79 p.
  10. Praude, Valērijs. Teritoriālais mārketingš: (teorija un prakse) [*Territorial Marketing: (Theory and Practice)*] / Valērijs Praude, Jekaterina Vozņuka; Scientific Research Institute for Social and Humanitarian Issues. Baltic International Academy. Riga: Scientific Research Institute for Social and Humanitarian Issues: Baltic International Academy, 2013. 533 p.
  11. Ruža, Oksana. Dzīvojamā nekustamā īpašuma analīze un vērtēšana reģionālajā aspektā: promocijas darba kopsavilkums ekonomikas doktora (dr.oec.) zinātniskā grāda iegūšanai [*Analysis and Estimation of Residential Real Estate in the Regional Aspect: summary of the thesis for obtaining the doctoral degree in economics (Dr.oec.)*] / Oksana Ruža; [scientific advisor of the thesis: Viktors Voronovs]; Daugavpils University. Department of Economics. Daugavpils: Daugavpils University Academic Publishing House "Saule", 2013. 82 p.
  12. Viesturs, Jānis. Starptautiskie darījumi ar nekustamo īpašumu: mācību grāmata [*Real Estate International Transactions: textbook*] / Jānis Viesturs, Ineta Geipele; scientific editor Ineta Geipele; reviewers: Aleksejs Loskutovs, Roberts Škapars, Kristīne Jarve; responsible for the issue Anita Vēciņa; editor Inga Skuja; cover design: Baiba Lazdiņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2017. 219 p.

13. Virsnieks, Andris. Kā ieguldīt nekustamajā īpašumā : zema riska iespēja, kā iegūt ilgtermiņa naudas plūsmu [*How to Invest in Real Estate: Low-risk Chance of Getting a Long-term Cash Flow*] / Andris Virsnieks; translated from English by Andžela Berķe. Rīga: Jumava, 2014. 223 [1] p.
14. Žavoronkova, Ilona. Nekustamā īpašuma nodokļa parādu administrēšana [*Real Estate Tax Debt Administration*] / Ilona Žavoronkova. Saarbrücken : GlobeEdit, 2015. 159 p.
15. Audretsch, David B. *Everything in its Place: Entrepreneurship and the Strategic Management of Cities, Regions, and States* / by David B. Audretsch. New York, NY: Oxford University Press, 2015. xi, 163 p.
16. *Baltic Journal of Real Estate Economics and Construction Management: scientific journal of Riga Technical University* / [Riga Technical University. Institute of the Civil Engineering and Real Estate Economics. Faculty of Engineering Economics and Management]. 1 (2013), Rīga : RTU Press, 2013- vol.
17. Brueggeman, William B. *Real Estate Finance and Investments* / William B. Brueggeman, Ph.D., Jeffrey D. Fisher, Ph.D. 15<sup>th</sup> New York, NY: McGraw-Hill Education, [2016] xviii, 807 p.
18. Dalal-Clayton, D. B. *Sustainability Appraisal: A Sourcebook and Reference Guide to International Experience* / Barry Dalal-Clayton and Barry Sadler with contributions from James Baines ... [et al.]. London; New York: Routledge, ©2014. xlii, 810 p.
19. Dawson, Catherine. *The Complete Guide to Property Development for the Small Investor* / Catherine Dawson. 3<sup>rd</sup>, Philadelphia: Kogan Page Limited, 2013. xviii, 270 p.
20. Fink, Matthias. *Community-Based Entrepreneurship and Rural Development: Creating Favorable Conditions for Small Businesses in Central Europe* / by Matthias Fink, Stephan Loidl, and Richard Lang. New York, NY: Routledge, 2014. xii, 246 p.
21. Hamilton, Kyrie. *Land use management* / edited by Kyrie Hamilton. New York: Syrawood, 2018. vii, 252 p.
22. Havard, Timothy. *Financial Feasibility Studies for Property Development: Theory and Practice* / Tim Havard. Abingdon, Oxon: Routledge, ©2014. xviii, 270 p.
23. Haynes, Barry P. *Corporate Real Estate Asset Management: Strategy and Implementation* / Barry P. Haynes and Nick Nunnington. London; New York: Routledge, 2014. xiii, 298 p.
24. Hennessey, Brian. *The Due Diligence Handbook for Commercial Real Estate: A Proven System to Save Time Money, Headaches and Create Value when Buying Commercial Real Estate* / by Brian Hennessey. [USA]: by Brian Hennessey, 2016. 81, [1] p.
25. *International Approaches to Real Estate Development* / edited by Graham Squires and Erwin Heurkens. London; New York: Routledge, Taylor & Francis Group, ©2015. xiv, 238 p.
26. Metternicht, Graciela. *Land Use and Spatial Planning: Enabling Sustainable Management of Land Resources* / Graciela Metternicht. Cham, Switzerland: Springer, 2018. xvii, 116 p.
27. Nöllke, Matthias. *Immobilien erwerben* / Matthias Nöllke. 8. Aufl. Freiburg : Haufe, c2013. 126 p.
28. Nolon, Sean. *Land in conflict: Managing and Resolving Land Use Disputes* / Sean Nolon, Ona Ferguson, and Pat Field. Cambridge, Massachusetts: Lincoln Institute of Land Policy, c2013. xv, 188 p.
29. *Real Estate Concepts: A Handbook* / edited by Ernie Jowsey with contributions from staff at Northumbria University. New York, NY: Routledge, 2015. xxvi, 494 p.
30. Shapiro, Eric F. *Modern Methods of Valuation* / Eric Shapiro, David Mackmin and Gary Sams. 11th ed. Abingdon, Oxon; New York, NY: Routledge, 2013. xxxiv, 516 p.
31. Sirgy, M. Joseph. *Real Estate Marketing: Strategy, Personal Selling, Negotiation, Management, and Ethics* / M. Joseph Sirgy. Abingdon, Oxon: Routledge, 2014. xii, 306 p.
32. Ардзинов, В. Д. Ценообразование в строительстве и оценка недвижимости [*Pricing in Construction and Real Property Valuation*] / В.Д. Ардзинов, В.Т. Александров. Москва [и др.]: St. Petersburg, 2013. 384 p.

33. Дурнев, А. Инвестирование в недвижимость: как заработать без стартового капитала на чужих деньгах [*Investment in Real Property: How to Earn With No Seed Capital, on Other People's Money*] / А. Дурнев, А. Бородин, Е. Малик. Ростов-на-Дону: Феникс, 2013. 157, [1] p.
34. Оценка недвижимости: [*Real Property Valuation: Training Aid for University Students in Management*] / Т.Г. Касьяненко ... [et al]. 2<sup>nd</sup>, stereotype. Moscow: Knorus, 2013. 751 [1] p.

The resource base and facilities of the study program are provided by RTU and FEEM facilities and infrastructure. FEEM facilities and, consequently, the resources of the study field are regularly updated.

The lecture rooms used for the needs of the study program are equipped with all necessary audio and video hardware. There is necessary equipment for video lectures, computer classes, copying machines, etc.

The academic personnel and administration draw great attention to effective modes of the lecture room usage and enhancement of the study program quality. Advanced IT technologies are used during the classes: academic staff use electronic teaching tools for visual presentation of lecture curricula (PowerPoint presentations, audio-video materials, video materials, etc.), video lectures are being gradually integrated, also e-learning platform is used. Computer classes are used not only in solution of practical tasks, which allow students to acquire the latest IT technologies, but also in promotion of research through application of different data bases.

The ICEREE has been implementing the study program at FEEM, it has established the research Laboratory for Building Entrepreneurship and Real Estate, where students can use laboratory equipment and software within different study courses, for example, "Planning of Visual Environment in Real Estate", "Computerized Project Management", "Management of Building Construction Projects", etc. to use laboratory equipment and software.

The following units can be listed as the examples:

- BERE System dynamics simulation unit: Vensim Simulation Academic DSS, Vensim Simulation Professional, Microsoft SQL 2008;
- BERE Situation modelling unit: General algebraic Modelling System, Windows Server 2008 R2, server, power unit;
- BERE Environmental, territorial, infrastructure development modelling unit: video communication system, presentation equipment, Map Info (software), JS Latvija (software);
- BERE Real estate management and development unit: Realty Ware Professional (software), NamZinis (software), NamuBoss, Darbu Boss (software), AutoCad (software);
- BERE in cooperation with the Department of Geomatics of the Institute of Mechanical Engineering of FCE: drone - FlyTop Unmanned Aerial Vehicle FLYNOVEX with control unit, six accumulating batteries, accumulating battery charging device, high resolution photo camera and thermocamera "FLIR VUE PRO";
- BERE Building microclimate, energy efficiency monitoring and modelling unit: software, extension module, air flow and temperature sensor with display, apartment comfort (ceiling/floor) and outdoor temperature sensor, humidity sensors, humidity sensors with display, CO<sub>2</sub> and temperature sensors, pressure sensor with display, installation materials, recovery ventilation set, internet routers, installation materials, thermography cameras, installation materials, camera software, noise (sound level) meter (portable), air quality meter, oxygen meter, air flow meter, light meter (luxmeter), pressure sensor, air flow rate meter, conductivity meter, water tester, oxygen concentration meter, PH meter, humidity meter, soil moisture meter, digital temperature sensor, hygrometer;
- BERE Meteorological Center with software – an aerial with the software.

Students can use services provided by the RTU Library (<http://www.zb.rtu.lv/>). They can also use a methodological room of the Library, where they can get familiar with the latest periodicals, statistical materials, books, conference materials on the most pressing issues in the sector. The FEEM has a free access library, where a student can take a publication of interest and bring it back later.

### 3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).

## III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)

### 4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.

The study program implementation takes place with involvement of Doctors of science and lecturers or highly qualified professionals with relevant work experience, whose characteristics are provided in their CV. The list of members of academic staff and their CVs are enclosed herewith.

The members of academic staff meet the requirements for the study course delivery. It may be attested both by their characteristics and CVs, as well as by their scientific and methodological research, participation in international, RTU and FEEM scientific and methodological conferences.

#### Characteristics of the Academic Staff Working with the Latvian Students

No.	Parameters	Number	Ratio, %
1.	Position:		
	Professors	5	21.70
	Associate Professors	5	21.70
	Assistant Professors	6	26.70
	Visiting Lecturers	2	8.60
	Lecturers	1	4.21
	Assistants	3	13.04
	Researchers	1	4.21

	<b>Total:</b>	<b>23</b>	<b>100</b>
2.	Scientific degrees:		
	Doctors of Sciences	17	73.91
	Masters	6	26.09
	<b>Total:</b>	<b>23</b>	<b>100</b>
3.	By age:		
	under 30	3	13.04
	31 - 40	3	13.04
	41 - 50	7	30.44
	51 - 60	5	21.74
	over 60	5	21.74
	<b>Total:</b>	<b>23</b>	<b>100</b>

Overall, the data demonstrate that qualification of the academic personnel is sufficient to ensure the quality of the study courses. In the reporting period, the number of academic personnel, who obtained PhD degree in the mentioned period, has increased, thus, for example, the study program employs Assoc.Prof. A.Auziņš, G.Actiņa, S.Geipele, Assis.Prof. L.Kauškale, K.Fedotova, etc. 73.91% of academic personnel working at the study program hold a PhD degree. A number of lecturers work in parallel exactly in real estate sector, thus their hands-on skills and competence are transferred to the study program.

An analysis of the age structure of the academic staff involved in the program implementation shows that the academic staff aged over 60 has decreased, i.e. currently composing 21.74% of the total number. The academic staff aged 41-50 has increased, i.e., 30.44% of the total number. Administration of the study program currently works at attracting Doctoral students for cooperation. At present, their number is 5, i.e., 21.74% of the total number.

The academic staff involved in the implementation of the study program in English has the relevant level of the foreign language skills required for such work.

#### **Characteristics of the Academic Staff Working with the Foreign Students**

<b>No.</b>	<b>Parameters</b>	<b>Number</b>	<b>Ratio, %</b>
1.	Position:		
	Professors	1	8.33
	Associate Professors	2	16.67

	Assistant Professors	2	16.67
	Visiting lecturers	2	16.67
	Lecturers	1	8.33
	Assistants	2	16.67
	Researchers	2	16.67
	<b>Total:</b>	<b>12</b>	<b>100</b>
2.	Scientific degrees:		
	Doctors of Sciences	6	50
	Masters	6	50
	<b>Total:</b>	<b>12</b>	<b>100</b>
3.	By age:		
	under 30	3	25
	31 - 40	3	25
	41 - 50	4	33.33
	51 - 60	2	16.67
	<b>Total:</b>	<b>12</b>	<b>100</b>

The study program administration solves the issue of improving the foreign language knowledge, since the RTU Senate has taken decision on the procedure for confirming the knowledge of a foreign language. With a decrease in the number of guest lecturers working at international companies, they must follow the decision of the RTU administration to demonstrate the English language knowledge by passing IELTS or TOEFL tests.

In the whole, the data show that the academic staff possess appropriate qualification to ensure the appropriate quality of the study courses. A number of the university instructors in parallel work exactly in the real estate sector, therefore their competence and practical work skills are transferable to the study program.

Currently, two visiting lecturers are working at the study program. These instructors work at other higher education institutions, but they deliver certain study courses within the study program in the form of exchange, thus ensuring cooperation not only within RTU, but also with other universities.

The academic staff advance their its teaching skills and qualifications by attending conferences and workshops, different training courses, working at other organizations as consulting specialists and gaining hands-on work experience.

The university instructors annually take an active part in the methodological seminars organized by

RTU and other universities.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The qualification of the academic staff involved in the study program implementation complies with the study program implementation requirements and those of regulatory enactments.

The study program is implemented with involvement of RTU employees elected for academic positions, visiting lecturers and Doctoral students.

The study program is also implemented with involvement of employees engaged in different scientific projects, in order to transfer the knowledge obtained from projects to the study program, to improve the content of the study program.

Currently, four visiting assistant professors participate in the implementation of the study program. These representatives of the academic staff work at other universities and companies, but conduct certain study courses of the study program in the form of exchange, and thus ensuring mutual cooperation not only inside RTU, but also with other universities.

Training and qualification upgrade of the academic staff takes place through participation in conferences and seminars, learning at different courses, participating in the work of other organizations, performing practical work as experts and consultants. Every year, lecturers take an active part in methodological seminars organized by RTU and other universities.

The following academic staff are involved in the study program implementation:

Ineta Geipele, Dr.oec., RTU Professor, Dipl.ing., acquired and developed her professional competence and values at different universities in Germany, Austria, Denmark and England, which she currently integrates in the studies, teaching methodology and scientific research. Research interests of Professor Ineta Geipele lie in such fields as the issues of sustainable development in the real estate market, real estate management, building construction, effective land use management, institutional economics and social management both at the national and international level. Professor Ineta Geipele is an expert of social sciences at the Latvian Council of Science in such fields as Economics and Entrepreneurship; Social and Economic Geography and other social sciences, including generic fields of social sciences. Professor I. Geipele is the author and co-author of over 300 scientific publications, including 10 books, at the moment she is heading Projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020. In parallel to her main activities she works as a real estate consultant at “Ādažu namsaimnieks” Ltd., and at the Guild of Latvian House Managers. Qualification of Professor Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Strategic Marketing Management in Civil Construction”, “Research Methods in Construction and Real Estate



Management” and “Master Thesis”.

Jānis Vanags, Dr.oec., Dipl.ing., RTU Professor. Professor’s scientific and academic interests lie in the Latvian national economy, engineering economics, construction and house management and real estate management and real estate evaluation, economics of real estate, microeconomic and macroeconomic processes, sustainable development. Professor J. Vanags is the author of numerous scientific publications, including 5 books, and the co-author of the monograph “Financing Models for Housing Fund Renovation in Latvia” and “Socio-Economic Aspects of the Interaction of Urban and Regional Development”. In parallel to his work at the University, he works as a consultant for “Consalis” Ltd. Qualification of Professor Vanags meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Construction Economics”, “Construction Pricing” and “Real Estate Business (study project)”.

Tatjana Tambovceva, Dr.oec, Dipl.ing., RTU Professor, an expert of social sciences in the field of Economics and Entrepreneurship at the Latvian Council of Science. Her research and academic interests lie in green management, management of building construction projects, sustainable development. Professor Tamboceva regularly advances her professional qualifications by taking part in ERASMUS mobility program. Professor Tambovceva is the author of numerous scientific publications, co-author of books and monographs. Qualification of Professor Tambovceva meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study course “Construction Project Planning and Controlling”, “Construction Project risk and Quality Management”, “Management of Building Construction Projects”.

Armands Auziņš, Dr.oec., Associate Professor, has developed several textbooks, over 20 international scientific articles in the field of land management. A.Auziņš is a member of the European Academy of Land Use and Development (EALD). His research interests relate to land management, land planning and surveying, as well as planning for the development of territories. He regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. Currently, he is working at the project “A values-Led Planning Approach for Sustainable Land Use and Development. Activity 1.1.1.2 “Post-doctoral Research Aid” of the specific aid objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and Employment” (No. 1.1.1.2/VIAA/1/16/161). The qualification of Assoc. Professor A. Auziņš complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses “Research Methods in Construction and Real Estate Management”, “Land Use Management”.

Sanda Geipele, Dr.oec., Associate Professor, an expert of social sciences in the fields of Economics and Entrepreneurship at the Latvian Council of Science. She acquired her work experience both working in private companies and public institutions, which includes real estate tax management at the Municipal Revenue Department of Riga City Council. Her scientific interests lie in development of real estate market sustainability, resource management, building construction, including land use management and institutional economics. She is the author and co-author of over 60 scientific publications, she is also the author of the scientific monograph “Management System for Real Estate Market Development in Latvia” and the co-author of the monographs “Real Estate and Economic Development: Synergy of Science and Practice”, “Financing Models for Housing Fund Renovation in Latvia” and “Socio-Economic Aspects of the Interaction of Urban and Regional Development”. At the moment, Assoc. Prof. Geipele is the project manager in INTERREG CB project “Coast4us” (01.01.2018 – 31.12.2020), and in two INTERREG EU projects “OptiWaMag: Optimization

of waste management in urban spaces and in households" (01.08.2019 – 31.01.2023) and "PROGRESS: PROMoting the Governance of Regional Ecosystem Services" (01.08.2019 – 31.07.2023). Qualification of Assoc. Prof. Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Real Estate Business (study project)".

Gita Actiņa, Dr.oec., Associate Professor. Her scientific interests lie in sustainable development issues, development of energy saving process management systems, building construction and energy, including entrepreneurship and real estate finance. She is the author and co-author of numerous publications. In parallel to her work at RTU, she works at the World Energy Council. Qualification of Assoc. prof. Actiņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Business Valuation", "Financial Management in Civil Construction", "Economical Aspects of Real Estate transactions Abroad" and "Company's Business Activities Evaluation".

Raja Kočanova, Dr.sc.admin., Assistant Professor. Her scientific and academic interests lie in the areas of strategic business management, sustainability of real estate market development, building construction sector. R. Kočanova is the author and co-author of over 20 scientific publications, and the co-author of the monograph "The System of Strategic Management for Sustainable Development of Organizations" and "Real Estate and Economic Development: Synergy of Science and Practice". She regularly advances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the Project "A Values-Led Planning Approach for Sustainable Land Use and Development. Activity 1.1.1.2 "Post-doctoral research aid" of the specific support objective 1.1.1 "To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure" of the operational program "Growth and Employment" (No 1.1.1.2/VIAA/1/16/161). 2017-2020. Qualification of Associate Professor Kočanova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Management of Innovations in Building Construction", "Specialized Practical Placement".

Kristīne Fedotova, Dr.oec., Assistant Professor. Her research interests lie in real estate management, sustainable development issues in the real estate market. K. Fedotova is the author and co-author of scientific publications, she is also the co-author of two books and regulations. She regularly enhances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the project ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. Qualification of Assistant Professor Fedotova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Real Estate Marketing", "Game Theory for Civil Construction Economics", "Practical Training".

Antra Kundziņa, Dr.sc.ing., Assistant Professor. The author of numerous scientific publications. Her research areas include strategic business management, sustainability of real estate market development, building construction sector. In parallel to her work at RTU, she works as a researcher at the Institute of Physical Energetics. Qualification of Assistant Professor Kundziņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Estimation of the Construction Operations (study project)" and "Evaluation of Technical State of Buildings and Structures (study project)".

Linda Kauškale, Dr.oec., Assistant Professor, an expert of social sciences at the Latvian Council of Science in such fields as Economy and Entrepreneurship; Social and Economic Geography and other social sciences, including generic ones. In 2016, L. Kauškale became beneficiary of a scholarship Deutsche Bundesstiftung Umwelt, she works at the German Sustainable Building Council. Linda Kauškale is the author of numerous scientific publications, she has participated in international scientific projects, conferences and workshops in Latvia and abroad, etc. Her main areas of research include sustainable development of real estate market, sustainable building construction, environment-friendly buildings, certification of green building construction, macroeconomic analysis, decision making, environment protection and others. Qualification of Assistant Professor Kauškale meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Real Estate Economics", "Real Estate Market in National Economy" and "Civil Construction and Real Estate International Market".

Māris Kaļinka, Dr.sc.ing., Associate Professor, works at the projects of international significance INTERREG CB, project "Piekraste mums [Coast4us]" (01.01.2018 – 31.12.2020), etc. His research interests include urban planning, the introduction of digitization in construction and urban management, land planning. M.Kaļinka is the author and co-author of a number of scientific publications. The qualification of Associate Professor M.Kaļinka complies with the study program implementation conditions and the requirements of regulatory enactments, as well as ensures the achievement of objectives and learning outcomes of the study program and the study course "Computer-based Project Management".

Iveta Amoliņa, Mg.oec., Dipl.iur., 4th-year Doctoral student, lecturer. Her research interests lie in such fields as problems of real estate systemic management, housing policies, residential development, maintenance and rehabilitation strategy, energy conservation measures and impact on the environment and sustainability. Iveta Amoliņa is an expert in residential management and rehabilitation. She is the author and co-author of over 30 scientific publications. Ivetas Amoliņa's professional experience is based on supervision of six ERAF SF projects "Improvement of energy efficiency in residential buildings". I. Amoliņa is an expert at the ESF project 8.5.2.0./16/I/001 "Improvement of the industry qualification system for the development of vocational education and quality assurance". Qualification of Lecturer I. Amoliņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study course "Organization of Real Estate Management and Administration".

Laimdota Šnīdere, Dr.phys., Assistant Professor, RTU researcher. Her current research interests lie in the areas of energy conservation and sustainable development of building construction sector. She is a co-author of scientific publications. She regularly enhances her competence by attending workshops, conferences and professional training courses. As a researcher L.Šnīdere works on the project INTERREG EU "Optimization of waste management in urban spaces and in households" (01.08.2019. – 31.01.2023.) Qualification of Assistant Professor Šnīdere meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Estimation of the Operation Costs of the Administration and Management" and "Estimation of the Service Lines Operations Costs".

Jānis Viesturs, Mg.oec., the 4<sup>th</sup> year Doctoral student. J. Viesturs has more than 20 years of experience in real estate management and development, and transactions with real estate. He regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. His research interests include the definition of real estate, international and national transactions in real estate, various real estate registration systems, the process of verifying the legality of real estate and administration of real estate. He is a co-author of

several internationally significant publications. The qualification of J. Viesturs complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Politics and Philosophy of Property".

Jānis Zvirgzdiņš, Mg.sc.oec., Dipl.ing., researcher, 2nd-year Doctoral student. His research and academic interests lie in environment-friendly economy, circular economy, sustainable development, smart urban environment, renewable and nuclear energy, as well as public administration. He was awarded the prize of the Latvian Association of Electrical Power Engineering and Energy Contest of Qualification Papers in 2015. He is a co-author of numerous scientific publications. At the moment, he works on the projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education; No 2018-1-LT01-KA203-046963. 01.09.2018 – 31.08.2020, and on the project INTERREG EU "PROmoting the Governance of Regional Ecosystem Services – 31.07.2023). He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of J. Zvirgzdiņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Management of Ecology".

Renāte Muskate, Mg.oec., Research Assistant, candidate for a PhD scientific degree. Her range of interests concerns issues related to the valuation of real estate. She also works as a Real Estate Appraiser at JSC Citadele. She regularly upgrades her qualification by attending seminars, conferences and professional qualification upgrade courses. She is an author and co-author of a number of scientific publications. The qualification of R.Muskate complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Real Estate Valuation Theory".

Ģirts Zariņš, MBA, BSc. phys. (Specialization – IT Electronics), certified CMMI 3 project management auditor, 1st-year Doctoral student, carries out research in urban economics, modelling, growth and sustainable development. He is a co-author of numerous scientific publications. His professional qualification was obtained during his work as a project manager for various companies in Latvia. Ģ. Zariņš regularly enhances competence by attending workshops, conferences and professional training courses. Qualification of Ģ. Zariņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Management of Building Construction" and "Investments in Real Estate Development".

Andrejs Lazdiņš, Dr.oec., visiting lecturer. His main workplace is at the Latvia University of Life Sciences and Technologies. He is a co-author of a number of scientific publications. A.Lazdiņš regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. The qualification of A.Lazdiņš complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Communication Psychology in Real Estate Business".

Šteinberga Airisa, Dr.psych., Associate Professor. Professional experience: pedagogical work experience at RTU in different psychology study subjects (psychology, cognitive and social psychology, pedagogical psychology, etc.) and development of programs for over 25 years, development and conduction of pedagogical upgrade course programs and trainings for over 10 years. Her regular professional upgrade as a psychologist and the work of a psychologist-

consultant, as well as a long experience of academic activities allows her not only to enrich the content of study courses in her work with students but also to supplement lectures, practical classes and tasks to be performed independently with her pedagogical style and personal attitude. Her research experience in joint projects with researchers of engineering institutes allows her to understand and use examples and terminology which are understandable to students in engineering sciences. The qualification of A.Šteinberga complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Communication Psychology in Real Estate Business".

Mārtiņš Vilnītis, Dr.sc.ing, Assoc. Professor. Certified construction supervisor. Member of the Board of Latvian Association of Construction Engineers (LACE) and Head of the Section of Education and Young Specialists. His research interests include construction technologies, construction supervision. He is an author and co-author of a number of scientific publications. M.Vilnītis regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. The qualification of M.Vilnītis complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Construction Technology".

Ņikita Kočanovs, MBA, the 4<sup>th</sup> year Doctoral student. He also works at a foreign company Oberon. His research interests include improvement opportunities for real property visual environment. He is an author and co-author of a number of scientific publications. Ņ.Kočanovs regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. The qualification of Ņ.Kočanovs complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Planning of Visual Environment in Real Estate".

Jānis Ieviņš. Dr.sc.ing., Professor. His research interests include labor safety issues. He is an author and co-author of a number of scientific publications. J.Ieviņš regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. The qualification of J.Ieviņš complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses "General and Occupational Safety" and "Basics of Occupational Safety".

Daina Ose, Dr.jur., visiting assistant professor. She ensures research components in working with students through active participation in qualification upgrade seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific research work by contract. She is an author and co-author of a number of scientific publications. The qualification of D.Ose complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Commercial Law".

From the aforementioned academic staff, the following lecturers work with foreign students: A.Auziņš, T.Tambovceva, J.Zvirgzdiņš, K.Fedotova, L.Kauškale, M.Kaļinka, J.Viesturs, J.Zvirgzdiņš, Ģ.Zariņš, A.Lazdiņš, Ņ.Kočanovs.

Additionally:

Andris Kairiņš, MBA, Researcher. His research interests are related to real estate historic and economic development. He is a co-author of a number of scientific publications. A.Kairiņš regularly upgrades his qualification by attending seminars, conferences and professional qualification

upgrade courses. The qualification of A.Kairišs complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses "Financial Management in Civil Construction", "Organization of Real Estate Management and Administration" and "Economical Aspects of Real Estate Transactions Abroad".

Nikolajs Ozoliņš, Mg. jūr. Postdoctoral researcher, guest lecturer from Turība University, whose area of scientific and practical research deals with issues related to the reform of regional territories. His qualification corresponds to the study program implementation requirements and the requirements of the regulatory enactments, as well as ensures achievement of the study program and the study course "Commercial Law" goals and learning outcomes. In the whole, the data show that the academic staff possess appropriate qualification to ensure the appropriate quality of the study courses. A number of the university instructors in parallel work exactly in the real estate sector, therefore their competence and practical work skills are transferable to the study program.

Laura Tupenaite, Dr.oec., Associate Visiting Professor at Vilnius Gediminas Technical University, is associated with work with foreign students in the program. Her research interests are related to the economic development of real estate, construction economics. He is the author and co-author of several scientific publications. L.Tupenaite improves her qualification by attending seminars, conferences and professional development courses on a regular basis. L.Tupenaite's qualification corresponds to the study program implementation conditions and the requirements of regulatory enactments, as well as ensures achievement of the goals and study results of the study program and study courses "International Market of Construction Products and Real Estate" and "Risk and Quality Control of Construction Projects".

Currently, two visiting lecturers are working at the study program. These instructors work at other higher education institutions, but they deliver certain study courses within the study program in the form of exchange, thus ensuring cooperation not only within RTU, but also with other universities.

The academic staff advance their teaching skills and qualifications by attending conferences and workshops, different training courses, working at other organizations as consulting specialists and gaining hands-on work experience.

The university instructors annually take an active part in the methodological seminars organized by RTU and other universities.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information**

**on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Within the scope of research for Deutsche Bundesstiftung Umwelt DBU exchange program scholarships "MOE Ausstauschstipendi-umprogramm – Scholarship Program Central and Eastern Europe (MOE)", in Germany, in the autumn semester of 2016 the scientific assistant L. Kaushkale carried out research within the project submitted in Germany "The Environmental and Economic Substantiation of Investments in Green Buildings". The recent findings acquired during the research are integrated in the study courses "Real Estate Economics", "Real Estate Market in National Economy" and "Civil Construction and Real Estate International Market".

On 4 – 11 July 2018, the annual Baltic Sea Region Teachers Course in sustainable development "The SAIL (Sustainability Applied in International Teaching and Learning) Teachers Course 2018" took place within the Baltic University, attended by Professor T.Tambovceva. The teachers of different cultural background from various countries and universities, representing a variety of study disciplines and scientific fields had an opportunity to share their knowledge, experience, to study and to teach, to develop their skills in the field, as well as to do a joint work. The main goal of the event was to enhance education and scientific research in the field of sustainable development by giving practical recommendations, proposals and solutions. The acquired information was saturated with good practices of enhanced education in sustainable development based on unique experience of different countries, study disciplines and research fields. The study program has had this knowledge integrated in many study courses, for example, "provides for achievement of the aims and learning outcomes of the study program and study course "Construction Project Planning and Controlling", "Construction Project risk and Quality Management", "Management of Building Construction Projects".

Since 2012 the Director of ICEREE, Professor Ineta Geipele has been a jury member at the contest "The most energy efficient building in Latvia 20xx" organized by of LR Ministry of Economics and VARAM within ESF Project "Live Warmer!" Also, since 2015 Professor Ineta Geipele has been a jury member at the contest "The Best Building of the Year" organized by the Latvian Builders Association, since 2014 Professor Ineta Geipele has been an evaluator at the contest "Annual Construction Industry Award" within the project of LR Ministry of Economics and Latvian Association of Civil Engineers. The acquired experience and knowledge are applied within the study courses "Strategic Marketing Management in Civil Construction", "Research Methods in Construction and Real Estate Management" and "Master Thesis".

The academic personnel participating in the implementation of ICEREE study program took part in the work of the jury at LANIDA contest "Real Estate Agent 2017". The acquired experience and knowledge were integrated into various study courses of the study program.

Professor I. Geipele and researcher I. Stāmure take part in the trainee program, planned for RTU academic personnel within ESF Project No 8.2.2.0/18/A/017 "Strengthening of Academic Personnel

of Riga Technical University in Strategic Specialization Areas ". The acquired experience and knowledge upon completion of training is going to be integrated in the study programs of engineering study courses.

Within the framework of the implemented study courses, information on novelties and latest technologies has been integrated, training tours have taken place to sites, news about technology developments have been integrated into the study courses "Management of Ecological Systems", "Management of Building Construction", etc. Students have an opportunity to listen to presentations of the competition participants and get information on the novelties.

Research results are published not only in the journals indexed in the internationally recognized databases, but also in the Baltic Journal of Real Estate Economics and Construction Management: scientific journal of Riga Technical University, where both academic personnel and students can publish their papers.

The academic personnel involved in the implementation of the study program have published scientific monographs:

1. Nekustamais īpašums un ekonomikas attīstība: zinātnes un prakses sinerģija: Scientific monograph (Real Estate and Economic Growth: Synergy of Science and Practice)/ Sandas Geipeles and Rajas Kočanovas (Eds.); reviewers: Tālav Jundzis, Namejs Zeltniš, Maira Leščevica; literary editor Inga Skuja; cover design: Paula Lore; Riga Technical University. The Institute of the Civil Engineering and Real Estate Economics. Riga: RTU Press, 2019. 239 p. <https://doi.org/10.7250/9789934222313>
2. Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā: Management System of Real Estate Market Development in Latvia); scientific monograph / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible publishing editor Natālija Čina; editor Lilita Vīksna; cover design Sanda Geipele]; Riga Technical University. The Institute of the Civil Engineering and Real Estate Economics. The Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p. <http://dx.doi.org/10.7250/9789934107610>
3. Geipele, Sanda. Management system of real estate market development in Latvia: summary of doctoral thesis; field: management science, subfield: entrepreneurship and business management / Sanda Geipele; scientific supervisor: Tatjana Tambovceva; Riga Technical University. Faculty of Engineering Economics and Management. Institute of the Civil Engineering and Real Estate Economics. Riga: RTU Press, 2014. 63 p.
4. Kauškale, Linda. Assessment of Sustainable Development of the Real Estate Market: Case of Latvia: summary of the doctoral thesis / Linda Kauškale; scientific supervisors: Dr.oec. Ineta Geipele, Dr.rer.pol. Frank Riemenschneider-Greif; official reviewers: Dr.oec. Elīna Gaile-Sarkane, Dr.oec. Maira Leščevica, Dr.oec. Natalya Bibik; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2018. 60 p.
5. Kočanova, R., Geipele, I., Niedrīte, V. Stratēģiskās vadīšanas sistēma organizāciju ilgtspējīgai attīstībai (Strategic Management System for Sustainable Development of Organizations); scientific monograph. Riga: RTU Press. 2013. 175 p. ISBN-9789934103483.

Study books are also published, such as, for instance, the study book by Jānis Viesturs and Ineta Geipele "Starptautiskie darījumi ar nekustamo īpašumu" (International Real Estate Transactions), published in 2017. [Viesturs J., Geipele I. International Real Estate Transactions: Study book. Riga: RTU Press, 2017. 220 p. ISBN 978-9934-10-903-4.].

The examples presented above confirm that the information acquired during research is integrated in the study process within every study course.



**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

In order to promote achievement of the study program outcomes, it is important to establish the crosslinks among the study courses and to ensure they are acquired in the logical sequential order. The system that facilitates regular organization of academic conferences and professional advancement seminars for improvement of professional competence has been established to promote cooperation among the academic staff at the Faculty and the University on the whole. Academic conference "Integration of methodological teaching and research work in the study process" organized on 27 April 2018 may be mentioned as an example. Such events promote advancement of the academic staff and provide opportunity to more efficiently collaborate in reaching learning outcomes and improving the study courses.

The study program implemented by the ICEREE is interdisciplinary. The curriculum consists of the study courses in building engineering, materials science, power engineering, social and economic geography, economics and entrepreneurship, other interdisciplinary social sciences, environment and occupational safety. Therefore, instructors from different organizational units, as well as industry specialists are involved in the implementation of the study courses. Practical training classes within the study course are provided both by university instructors and industry professionals.

The lecture on the topical issues in Real Estate Management and Administration was conducted jointly by Professor Ineta Geipele and MScRE Ģirts Beikmanis, the chair of the *Association of Management and Administration of Latvian Housing*.

Cooperation among the members of academic staff is supported by the fact that before the start of the study semester the academic personnel meet and agree upon the curriculum to avoid duplication of the study course curricula.

Course sequence is provided to ensure transition from the simple and general to the more complex and professional level, which allows promoting interrelationship and progressive sequence.

The department responsible for implementation of the study program evaluates the study process and the learning outcomes at the meeting at the end of each semester. Student questionnaires concerning the quality of the study course implementation are very important in this respect. Based on the analysis of the current situation effective joint solutions are found. For example, amendments to certain study course structures are made to avoid partial duplication and to enhance interrelationship between the study courses, or changes to the curriculum of the study program are made.

The ratio of students to academic staff is as follows:

90 students: 23 lecturers.

There are 3,91 students per lecturer.

However, it should be noted that in some study courses theoretical classes are led by one lecturer, but practical classes - by another lecturer, usually a practitioner related to the field, who is also a

RTU lecturer.

In separate study courses students are divided into groups. A different lecturer works with each group, for example, when developing study projects, students are assigned a study project manager.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	IGW0_grafiki.zip	IGW0_grafiki.zip
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	6.pielikums_BUNII_RIGW0.pdf	6.pielikums.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	RIGWo_prof_st.zip	RIGWo_prof_st.zip
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	RIGW0_kursu matrica_EN.zip	RIGW0_kursu matrica_LV.zip
Curriculum of the study programme (for each type and form of the implementation of the study programme)	RIGWO_plani.zip	RIGWO_plani.zip
Descriptions of the study courses/ modules	RIGW0_EN (1).zip	RIGW0_LV (1).zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms profesionāls maģistrs_2020.pdf	Diploms profesionāls maģistrs_2020.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	vienosanas.zip	vienosanas.zip
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under <a href="http://www.europass.lv">www.europass.lv</a> ), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Studiju ligumi_paraugs.zip	Studiju ligumi_paraugs.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Entrepreneurship and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Entrepreneurship and Management</i>
Education classification code	<i>42345</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Elīna</i>
Surname of the study programme director	<i>Gaile-Sarkane</i>
E-mail of the study programme director	<i>Elina.Gaile-Sarkane@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr. oec.</i>
Phone of the study programme director	<i>67089010</i>
Goal of the study programme	<i>The aim of the study programme is to prepare internationally competitive and dynamic business, financial, management and human resources management specialists, to build students' understanding of professional ethics and socially responsible management, to extend the field of vision, as well as to create a basis for further studies at a higher level to acquire knowledge and competence.</i>
Tasks of the study programme	<p><i>General objectives of the study programme:</i></p> <ul style="list-style-type: none"> <li><i>- To provide students comprehensive knowledge in the selected specialisation, to build competences of a functional leader in accordance with the selected specialisation and the requirements formulated by the labour market;</i></li> <li><i>- To ensure improvement and development of the content of the study programme, the study process, scientific research work in accordance with current development trends and needs of the national economy;</i></li> <li><i>- To promote interest of students in further professional improvement, supplementing of academic knowledge and further studies, to develop research work skills and promote their use;</i></li> <li><i>- To arouse interest of students in the processes ongoing in society, to stimulate development of students into a positive, modern, responsible, ethical person capable of acting, who is able to act and adopt decisions independently;</i></li> <li><i>- To develop research work of academic staff and students and practical use of the obtained results in business management;</i></li> <li><i>- To stimulate development of students into a positive, modern, socially responsible person capable of acting, who is able to act independently and adopt decisions independently;</i></li> <li><i>- To promote international mobility and involvement of students in scientific research work, including in different projects.</i></li> </ul>

Results of the study programme	<p><i>Graduates of the study programme:</i></p> <ul style="list-style-type: none"> <li>- Are able to analyse the business environment, to prepare reviews on factors of the external and internal environment, to justify them using quantitative methods;</li> <li>- Are able to develop development plans for an organisation or an organisational unit, to set goals in accordance with the strategy and policy of the organisation;</li> <li>- Are able to identify the resources necessary for the achievement of goals, to determine risks;</li> <li>- Understand the impact of the structure of the organisation for the achievement of set goals and are able to offer suggestions to increase the efficiency of internal processes;</li> <li>- Are able to lead an organisational unit in a functional area, reach the set goals and control use of resources;</li> <li>- Know the legal regulations of the functional area, are able to comply with the requirements of regulatory enactments;</li> <li>- Know how to effectively communicate own beliefs, are able to organise and lead communication in a professional environment, observe principles of professional and general ethics;</li> <li>- Use scientific research methods to justify own opinion, are able to conduct research with added value;</li> <li>- Understand and are able to use information technology tools for the achievement of goals of the organisation;</li> <li>- Are able to freely communicate in the professional environment at least in one foreign language.</li> </ul>
Final examination upon the completion of the study programme	<i>Mastering of the programme ends with a state examination, which includes defence of the Bachelor's thesis.</i>

## Study programme forms

### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Enterprise manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 5 years - latvian

Study type and form	<i>Part time extramural studies</i>
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Duration in full years	5
Duration in month	0
Language	latvian
Amount (CP)	160
Admission requirements (in English)	General secondary or vocational secondary education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Professional Bachelor's degree in entrepreneurship and management
Qualification to be obtained (in english)	Enterprise manager

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 5 years - latvian

Study type and form	Part time extramural studies
Duration in full years	5
Duration in month	0
Language	latvian
Amount (CP)	160
Admission requirements (in English)	General secondary or vocational secondary education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Professional Bachelor's degree in entrepreneurship and management
Qualification to be obtained (in english)	Financial manager

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 5 years - latvian

Study type and form	Part time extramural studies
Duration in full years	5
Duration in month	0
Language	latvian
Amount (CP)	160
Admission requirements (in English)	General secondary or vocational secondary education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Professional Bachelor's degree in entrepreneurship and management
Qualification to be obtained (in english)	Marketing manager

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 5 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>5</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Personnel manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Financial manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Marketing manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 4 years - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Personnel manager</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 4 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education. English language proficiency level test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Enterprise manager</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 4 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General or vocational secondary education, or first level professional higher education in business and management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Financial manager</i>

**Places of implementation**



Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 4 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education. English language proficiency level test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Marketing manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 4 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General or vocational secondary education, or first level professional higher education in business and management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's degree in entrepreneurship and management</i>
Qualification to be obtained (in english)	<i>Personnel manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

The name of the study programme, the degree to be acquired, professional qualification, aims, objectives, learning outcomes and admission requirements of the study programme are interrelated. The study programme is implemented in the form of full-time intramural studies and part-time extramural studies in Latvian. In accordance with industry trends, as well as suggestions of students for the improvement of the curriculum of the study programme, changes are made to the curriculum of study courses and the curriculum of the programme every year. The study course curriculum is reviewed, analysed and improved on a regular basis, existing study courses are supplemented and updated and new teaching methods and scientific research results are integrated in them. Programmes of individual study courses have been revised by integrating latest teaching methods, as well as supplementing with up-to-date topics. New teaching staff is involved in the implementation of individual study courses as needed.

In 2016, significant changes were made - an additional qualification "company manager" was added.

In 2019 on the basis of the RTU Senate meeting of December 16, 2019 (protocol No. 635) the following significant changes were made in the study program:

- the professional qualification has been changed from "economist" to "financial manager";
  - two professional qualifications were included "marketing manager" and "personnel manager";
- the degree to be awarded and the professional qualification were expressed: "professional bachelor's degree in business and management and qualification of the company's manager or financial manager, or marketing manager, or personnel manager".

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

In the reporting period the study programme is implemented in Riga and RTU Liepāja Branch. Based on the RTU Senate meeting decision of 27 November 2017 (minutes No.614), from 1 January 2019 the status of branches shall change by transforming them into regional study and science centres, **the study programme pending accreditation will not further be implemented in Liepāja. The provided statistical overview includes data on students in Riga and Liepāja (see Table 1).**

Table 1

Year of studies	Place of implementation	1st year	2nd year	3rd year	4th year
2013/2014	Riga (RICU0)	59	55	45	64
	Liepaja (LICU0)	9	5	10	16
2014/2015	Riga (RICU0)	58	53	55	44
	Liepaja (LICU0)	8	8	5	13
2015/2016	Riga (RICU0)	40	44	51	55
	Liepaja (LICU0)				
2016/2017	Riga (RICU0)	44	31	39	51
	Liepaja (LICU0)	13	9	5	9
2017/2018	Riga (RICU0)	46	30	29	45
	Liepaja (LICU0)	13	9	5	9
2018/2019	Riga (RICU0)	35	26	25	21
	Liepaja (LICU0)				

When analysing the total number of students in the reporting period, a conclusion can be made that **the number of students in the programme has reduced** (see Figure 1 “Total number of students in the programme”), at the same time, if we compare this trend with the number of graduates of a secondary school, and conclusion can be made that **the number of students in the programme corresponds to the current demographic situation in the country** (see Figure 2 “Changes in percentage in the number of graduates of secondary schools and enrolled students”). This can clearly be seen, taking into account that mainly graduates of grade 12 of a secondary school apply for full-time studies.

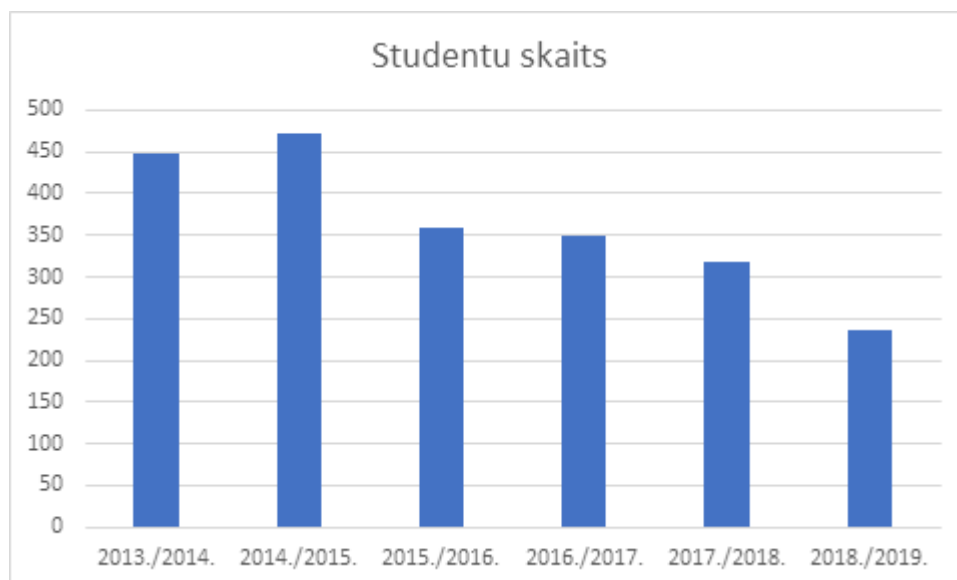


Figure 1 "Total number of students in the programme"



Figure 2. Changes in percentage in the number of graduates of secondary schools and enrolled students by years.<sup>1</sup>

**The following can be mentioned as reasons for the reduction in the number of students:**

1. Wish of secondary school graduates to study abroad;
2. Demographic condition;
3. State policy with regard to the reduction in the number of students of social sciences in favour of STEM sectors,
4. Annual reduction of state-funded study places, which causes an increase in students for tuition fee. At the same time, due to low solvency of the population and growing tuition fees, the number of students for tuition fee reduces, and other reasons.

At the same time, it should be noted that the number **of part-time students** reduced from 2013 to 2015, but has been at about the same starting from the year of studies 2016/2017, which is an evidence of the wish and the need of labour force on the labour market to obtain a new qualification and to improve professionally.

When analysing the number of students in the study programme by types of financing, i.e. state-funded study places and study places for tuition fee, a conclusion can be made that the every year the number of **students for tuition fee in the study programme exceeds the number of state-funded students. Therefore, a conclusion can be made that the study programme is in demand.**

The number of part-time students is stable (see Table 2). This depends less on the demographic situation, because these studies are for students with a service record rather than those who have just graduated a secondary school.

Table 2

## Dynamics of the number of students in part-time studies

Year of studies	Place of implementation	1st year	2nd year	3rd year	4th year	5th year
2013/2014	Riga (RICUN)	17	13	17	17	17
	Riga TIN (RICU0)	-	-	27	31	33
	Liepaja (LICU0)	4	-	-	2	6
2014/2015	Riga (RICUN)	21	10	12	21	16
	Riga TIN (RICU0)	-	-	27	32	45
	Liepaja (LICU0)	3	2	11	9	19
2015/2016	Riga (RICUN)	16	12	9	14	18
	Riga TIN (RICU0)	-	-	23	25	44
	Liepaja (LICU0)					
2016/2017	Riga (RICUN)	19	17	13	15	16
	Riga TIN (RICU0)	-	-	15	17	24
	Liepaja (LICU0)	1		3	3	6
2017/2018	Riga (RICUN)	20	10	10	10	6
	Riga TIN (RICU0)	-	-	15	8	20
	Liepaja (LICU0)	1		3	3	6
2018/2019	Riga (RICUN)	27	16	10	9	14
	Riga TIN (RICU0)	-	-	17	19	17
	Liepaja (LICU0)					

**Drop-outs also affect the number of students.** Historically, the biggest drop-outs are observed in the first two years. The biggest drop-outs are related to bad academic performance of students, mastering of mathematics and exact science study subjects is particularly difficult. This is explained by low level of mathematics in Latvian schools. In order to reduce drop-outs of students due to mastering of advanced mathematics, every year RTU tests knowledge of enrolled students in mathematics. Based on testing results, students with weak knowledge of mathematics are offered additional classes of mathematics, which are free of charge, for the purposes of increasing knowledge of students and reducing dropouts due to bad academic performance.

**Another important reasons of bad academic performance of the students expelled due to bad academic performance is the initiation of an employment relationship in the 2nd or 3rd year of studies.** Working students cannot combine work with studies and often make a choice in favour of work. In such situations, the programme management familiarises students with opportunities and offer of part-time studies.

Table 3

Drop-outs by academic years, specifying the reason (Riga)					
Year		1st year	2nd year	3rd year	4th year
2017/2018	After enrolment	2			
	On their own volition	3	2		
	For bad academic performance	11	4	2	4
	Failure to start studies after an academic leave				1
2018/2019	After enrolment	4			
	On their own volition	10	2		
	For bad academic performance	10	5		3
	Failure to start studies after an academic leave		2		

The number of graduates of the programme is proportionate to the number of students and expelled students.

**The study programme is implemented in Latvian**, however **every year at least one study course is implemented in English**, thus, for instance, in the year of studies 2018/2019 the study course “Corporate Social Responsibility” was implemented in English, together with students of the Erasmus exchange programme and full-time international students, thus ensuring learning of professional terminology and the establishment of international relations and internationalisation experience. In the next years of studies, at the initiative of students, there are plans to increase the number of study courses in English.

The statistics on graduates are available in Table 4.

Table 4

Number of graduates		
Year of studies	Number of graduates	
	4th year	5th year

2013/2014	Full-time	Riga (RICU0)	74	
		Liepaja (LICU0)	10	
	Part-time	Riga (RICUN)		18
		Riga TIN (RICU0)		25
		Liepaja (LICU0)		-
2014/2015	Full-time	Riga (RICU0)	52	-
		Liepaja (LICU0)	8	
	Part-time	Riga (RICUN)	-	11
		Riga TIN (RICU0)	-	17
		Liepaja (LICU0)		9
2015/2016	Full-time	Riga (RICU0)	52	-
		Liepaja (LICU0)	6	
	Part-time	Riga (RICUN)	-	12
		Riga TIN (RICU0)	-	25
		Liepaja (LICU0)		3
2016/2017	Full-time	Riga (RICU0)	44	-
		Liepaja (LICU0)	6	
	Part-time	Riga (RICUN)	-	9
		Riga TIN (RICU0)	-	14
		Liepaja (LICU0)		-
2017/2018	Full-time	Riga (RICU0)	37	-
		Liepaja (LICU0)	6	
	Part-time	Riga (RICUN)	-	6
		Riga TIN (RICU0)	-	17
		Liepaja (LICU0)		-

2018/2019	Full-time	Riga (RICU0)	26	-
		Liepaja (LICU0)		
	Part-time	Riga (RICUN)	-	10
		Riga TIN (RICU0)	-	13
		Liepaja (LICU0)		

Based on changes in external regulatory enactments in 2019, the management of the study programme amended the study programme and on 16 December 2019 the RTU Senate (minutes No. 635) approved the following changes in the Bachelor's study programme "Entrepreneurship and Management":

1. changed the professional qualification to be granted from the "economist" to the "financial manager";
2. included the professional qualification to be awarded "marketing manager" and "personnel manager";
3. amended the degree and the professional qualification to be awarded as follows: "professional Bachelor's degree in entrepreneurship and management and qualification of an enterprise manager, or financial manager, or marketing manager, or personnel manager".

Therefore, the study programme now includes 4 specialisations and the qualifications of enterprise manager, financial manager, marketing manager or personnel manager are awarded.

Breakdown of the number of students by language of instruction and sources of funding

When analysing the number of students by type of funding (see Table x), it can be seen that the study programme has 80 state-funded study places, which constitute 30% of the total number of students. This is evaluated as a positive factor, because it is an indication of high demand for the study programme in the labour market and its high quality. Every year the process of enrolment of new students shows that there is a big competition for state-funded study places, which is an evidence of the high value of the programme among future students.

When accrediting the study programme, the qualification of a personnel manager, which was previously implemented in the professional Bachelor's study programme "Human Resources Management", is included into it. Since this study programme will be closed after the end of the accreditation process and its students will continue studies in the professional Bachelor's study programme "Entrepreneurship and Management", then it is feasible to analyse also the types of funding and the number of students included in this study programme.

When analysing the number of students by type of funding (see Table 5) in the study programme "Human Resources Management", it can be seen that the study programme has 20 state-funded study places, which constitute 12% of the total number of students. More students for tuition fee is evaluated as a positive factor, because it is an indication of high demand for the study programme on the labour market and the need for specialists in this area. Every year the process of enrolment of new students shows that there is a big competition for state-funded study places, which is an evidence of the high value of the programme among future students.

Table 5

**Dynamics of the number** of enrolled students (by courses and years of studies) and the breakdown of students by **sources of funding** (state-funded study places, private funding)



Year of studies	Source of funding	1st year		2nd year		3rd year		4th year		5th year		Total
		full time studies	part-time studies	full time studies	part-time studies	full time studies	part-time studies	full time studies	part-time studies	full time studies	part-time studies	
2013/2014	state-funded students			4		4						8
	students for tuition fee	10	13	12	6	4	21		25		32	123
2014/2015	state-funded students					4		4				8
	students for tuition fee	10	25	6	9	11	27	3	18		36	145
2015/2016	state-funded students	12						5				17
	students for tuition fee	9	16	9	15	5	20	11	23		35	143
2016/2017	state-funded students	10		8		1		1				20
	students for tuition fee	8	21	7	15	8	25	3	16		39	142
2017/2018	state-funded students	4		8		8		1				21
	students for tuition fee	17	9	6	16	6	33	7	25		29	148
2018/2019	state-funded students	1		4		8		7				20
	students for tuition fee	8	28	14	9	4	22	6	28		36	155

When analysing the dynamics of the number of students, drop-outs and their causes together with industry development trends in the world and the situation in Latvia, a stable number of students and extensive development opportunities are expected in the Bachelor's study programme "Entrepreneurship and Management" in the future.

### 1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.

The Bachelor's study programme "Entrepreneurship and Management" corresponds to Regulations of the Cabinet of Ministers No.512 of 26.08.2014 "Regulations Regarding the Standard of Second Level Professional Higher Education" (for details see Annex 6) and regulatory documents of RTU.

General secondary education or 4-year vocational secondary education is required to start the studies. The amount of the study programme is 160 CP. As a result of successful mastering of the study programme, students are awarded a professional Bachelor's degree in business management and four qualifications: enterprise manager (since the beginning of implementation of the programme), financial manager (until changes in regulatory documents and the economist's qualification was awarded in the study programme at the end of 2019), marketing manager and human resources manager (the qualification was added from the study programme "Human Resources Management") – see Paragraphs 1.1 and 1.2.

In order to ensure the interrelation between admission requirements, study curriculum and learning outcomes, mastering of professional competence is implemented by learning field-specific theoretical study courses (36 CP), field-specific professional specialisation (60), internship (12 CP), by developing and defending a Bachelor's thesis (12 CP), while general competences are supplemented by mastering general education (12 CP), humanities and social sciences (8 CP), as well as elective study courses (6 CP).

Learning outcomes of the study programme fully ensure the fulfilment of requirements of the profession standard. The name, aim, objectives, learning outcomes to be achieved and the professional qualification to be obtained of the study programme are closely interlinked (on the compliance of the study programme with the professional qualification see Annex 7, on internal harmony of the study programme – compliance of its name, aim and objectives with the learning outcomes see Annex 8).

After receiving the report of the accreditation evaluation expert commission, the study programme has been improved, the curriculum of study subject has been revised, as well as new study courses have been included, for example, integration of foreign languages, fostering students to read literature published in a foreign language.

The results of assessment of knowledge of students of the professional Bachelor's study programme "Entrepreneurship and Management" are discussed at the IBEM council meeting twice a year. In order to ensure the implementation of labour market requirements in competence building and development within the study programme, employers are interviewed on a regular basis (at least once in 3 years) (within the programme development and methodological council, in cooperation with FEEM Convent of Councillors, analysing assessments of student internship, etc.). The results of the semester student survey also serve as a basis for improvement of the programme.

The results are summarised and evaluated by the administration of the programme, and they serve as a basis for further improvement of the study process. The graduation paper defence commission provides its feedback on the quality and defence of Bachelor's theses, which provides a report to the administration of the study programme on compliance of defended Bachelor's theses with labour market requirements and recommendations for improvement of the content of the theses.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

Professional Bachelor study programme "Entrepreneurship and Management" is created in compliance with the requirements of the labour market and latest scientific trends. The programme

was created in 2004; it has been accredited several times; last accreditation was in 2013 (Accreditation Sheet No. 22), and accreditation period is valid until 31 December 2020. Adapting to the students' demand, study programme is implemented in the form of full-time studies and part-time studies. Programme is implemented at RTU branch in Liepaja. Implementation of the programme at RTU branches has not been planned for the next accreditation period.

**Place of implementation** of the study programme is **Riga and Liepaja**. Types of implementation are **full-time intramural form** (4 years), **part-time extramural form** and **full-time extramural form** (5 years). Part-time studies at RTU are organised pursuant to decisions of RTU Senate and orders of the Administration. RTU standard planning includes 2 semesters per year of studies; duration of each semester is 20 weeks: 16 study weeks and 4 session weeks.

Institute of Business Engineering and Management of the Faculty of Engineering Economics and Management of Riga Technical University (hereinafter – IBEM) which implements the study programme closely **cooperates with professional associations in Latvia and Europe**. For instance, IBEM teaching staff are members/participants of **Latvian Association for People Management, Business Efficiency Association, Project Management Association** and other associations. Director of the programme Prof. Elīna Gaile-Sarkane is an active member of **UIIN** (*University Industry Innovation Network*), **Businet** (*Network of higher education institutions*), **NICE network** (*New Initiatives in Europe*), **EFMD** (*European Foundation for Management Development*) **and other organisations ensuring continuous improvement of the content of the programme in compliance with current trends in the international market, industry and science**.

Content of study programmes **is updated** in compliance with the needs of the industry, labour market and science trends. Each year, study programme is improved, taking into account the results of student questionnaires, as well as recommendations of the employers. Future vision of the professional Bachelor study programme “Entrepreneurship and Management” is implemented on the basis of opinion expressed by the students, graduates, employers, professional and non-governmental organisations in compliance with the direction set by the development plans of Latvia and in accordance with RTU mission and vision, aims and objectives.

**Competitiveness** of the study programme is proven by the fact that all graduates are on demand in the labour market, and right after completion of their studies they are employed within the framework of their speciality. **Topicality** and sustainability of the study programme is proven by the fact that RTU IBEM is the only one or one of the few higher education institutions for obtaining qualification in certain areas of qualification, such as personnel management and marketing management. In accordance with the **short-term forecasts for labour market** based on recommendation of the CIE (Council of Industry Experts) for creation of a profession of managers at the functional level and on the basis of employer survey, the study programme was improved in 2019.

Content of study programmes **is updated** in compliance with the needs of the industry, labour market and science trends. Each year, study programme is improved, taking into account the results of student questionnaires, as well as recommendations of the employers (see table 1).

Table 1

### Changes to the study programme

Year	Extracts		
	Study direction	Council	Orders
2015	No. 22000-7.3.2/5 5 May 2015	No. 92 (22000-5.1/7) 8 June 2015	No. 02000-1.1/80 1 September 2015
2015	No. 22000-7.3.2/11 7 September 2015	No. 92 (22000-5.1/11) 7 September 2015	No. 02000-1.1/88 15 September 2015
2016	No. 22000-10.2/4 10 May 2016	No. 107 (22000-1.1/7) 10 May 2016	
2019	No. 22000-10.2/17 26 November 2019	No. 48 (22000-1/1/23) 28 November 2019	
2019	No. 22000-10.2/18 26 November 2019	No. 49 (22000-1/1/124) 3 December 2019	
2019	No. 22000-10.2/18 3 December 2019	No. 49 (22000-1/1/125) 3 December 2019	

Study courses are being improved and supplemented if the teaching staff who are responsible for the course see the necessity. As of study year 2015/2016, active refinement and updating of the content of courses takes place. Since then, several courses suitable to current needs have been included in the programme:

- IVZ858 Startup Development 2 CP;
- IVZ749 Business Intelligence Technologies I 3 CP
- IVZ752 Business Intelligence Technologies II 2 CP
- IVZ746 New Product Design and Development Methodology 4 CP
- IVZ764 Coaching and Team Management 3 CP

For several study courses the titles and their contents were clarified and updated. In line with regulatory changes in 2019, the program was restructured to business and functional manager standards and new specializations were added.

Each year of studies includes 2 semesters; duration of each semester is 20 weeks: 16 study weeks and 4 weeks of examination period. Part-time studies at RTU are organised pursuant to decisions of RTU Senate and internal regulatory documents.

**Descriptions** of practical placement and final theses for the study courses **have been developed within the framework of UTV1 and comply with the requirements of the regulatory documents.** Descriptions of practical placement and final theses of the study courses **are reviewed and updated each year** so that the content would be **current, mutually complementary, correspond to the aims of the programme and ensure achievement of the planned study outcomes.** Multilateral cooperation and participation in international organisations ensures **compliance of the content of the programme with the needs of the industry and trends in science.**

At the same time, it should be emphasised that all teaching staff involved in implementation of the study programme are involved in research work which is reflected in publications of the teaching staff and participation in the projects.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The Bachelor study programme “Entrepreneurship and Management” corresponds to Regulations of the Cabinet of Ministers No.512 of 26.08.2014 “Regulations Regarding the Standard of Second Level Professional Higher Education” (see Annex 6).

**The aim of the programme is set** to provide professional studies that are applicable in practice, comply with the trends in labour market, economics and public development and are based on scientific insights of the industry. Content of the programme provides a set of knowledge, skills and competence in compliance with the knowledge, skills and competence of the 6th level of the framework laid down in the classification of education in Latvia. **Primary components of the programme are** study courses, study placement outside the educational institution and state examination which includes development and defence of the Bachelor thesis. **Objectives of the programme** are created so as to educate the students, providing acquisition of 5th level professional qualification and to promote competitiveness of the students in the changing social and economic conditions and international labour market. Professional Bachelor degree and qualifications corresponding to the programme shall be granted after passing the theoretical subjects, completion of placement objectives and defence of the Bachelor thesis before the State Examination Commission.

The foundation of the didactic concept of the study programme is the use of advanced and progressive study methods. It envisages development of study content and study organisation that ensures successive and enhanced learning of knowledge provided under the study programme and is geared towards solving real practical examples and problems, enhanced research of theoretical and practical issues in business management.

Compulsory content of the Bachelor programme is comprised of comprehensive educational study courses for the total of 20 credit points: humanities and social science study courses, including study courses developing social, communication and organisational skills; field-specific theoretical basic courses and information technology courses for the total of 36 credit points; field-specific professional specialisation courses for the total of 60 credit points; elective courses for the total of 6 credit points; placement for the total of 26 credit points; and state examination including development and defence of the Bachelor thesis for the total of 12 credit points.

**Content of the study programme is provided by comprehensive and professional study courses. Structure of the study courses is arranged into three levels** (see table). Students studying comprehensive, humanities, social science and elective study courses mostly acquire knowledge. Field-specific study courses, both theoretical and professional, mostly focus on development of skills and professional readiness; and students working in placement and development of Bachelor thesis prove the competence they have acquired.

### Study content

Knowledge	Comprehensive, humanities and social science 20 CP	Elective study courses 6 CP
Skills	Field-specific theoretical 36 CP	Field-specific professional specialisation 60 CP
Competences	Placement 26 CP	Bachelor thesis 12 CP

Content and volume of examinations corresponds to content specified in the subject programmes and requirements for professional qualification skills and knowledge. All conditions for acquisition of credit points have been described in the programme of each subject.

Study system is formed pursuant to the Law on Education, Law on Higher Education Institutions and Vocational Education Law in order to promote achievement of aims set for the study programmes and ensure completion of objectives. Study system and organisation at the higher education institution is internally regulated by internal regulations which are available on RTU website and with the programme administration. Students are familiarised with the documents regulating the study process upon commencing their studies.

Aim, objectives and planned outcome of the study programme are achieved as a result of successive completion of study courses (see Annex 8, spreadsheet “mapping”, table). Mapping of outcomes to be achieved by the study programme and study courses and further analysis on impact of each study course on achievement of outcomes of the study programme.

**Analysis of the components of the study programme shows that study content ensures compliance with the standard requirements of profession in logical proportions** (see Annex 8, spreadsheet “distribution of study courses”, figure “Impact of components of the study programme on achievement of study outcomes”). Most part of the study outcomes is acquired in field-specific professional specialisation study courses (38%), followed by field-specific restricted elective study courses (16%), field-specific theoretical and information technology study courses (14%), and comprehensive study courses (11%). The group of language, humanities and social studies courses ensures 5% and 6% of achievement of the study programme outcomes, respectively. Placement and Bachelor thesis ensures 4% and 6%, respectively.

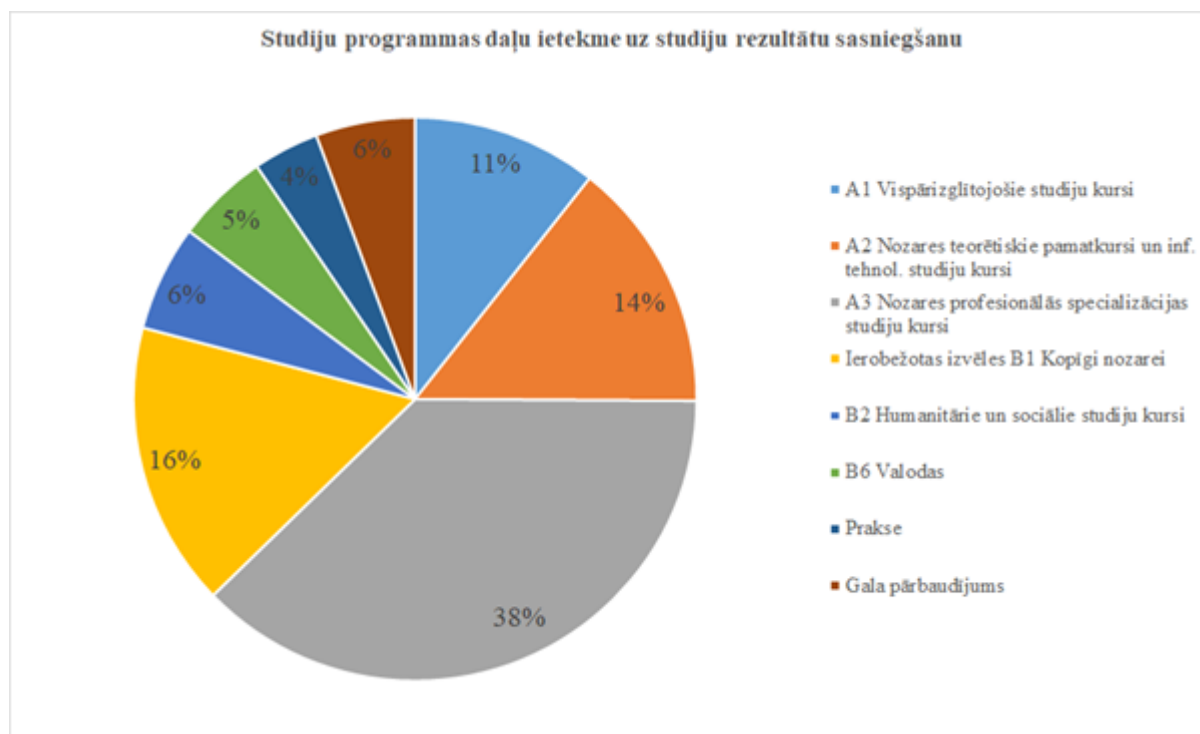


Figure 1. Impact of components of the study programme on achievement of study outcomes.

**Study plan is formed in compliance with successiveness of the study content** (see Annex 9). All conditions for acquisition of the credit points are described in the description of each study course (see Annex 10). Describe here the logic of the programme structure. Research activities are conducted throughout the whole period of studies.

In addition to sessions in class, study excursions of students to field-specific major companies and organisations are organised both in Latvia and abroad. Study excursions are created for enhanced understanding of separate topics within the framework of a specific study course. Study excursions have been discussed in paragraph 2.3.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study programme is designed to ensure a consecutive development of knowledge, skills and competences based on individual and group work, continuous communication between students and teaching staff.

**FEEM relationship with the students is characterised by mutual trust, respect and honesty.** Continuous **compliance** with **the principles of student-centred education is ensured.**

In accordance with the provisions defined in SCL manual, **involvement of students in study process and improvement of content** is ensured by offering the students both additional duties and powers. Students are given an opportunity to influence their study process, increase their

autonomy, provide feedback on study process, matching it with their expectations. Students may implement their participation in improvement of the study process directly by expressing their wishes to the teaching staff of the particular subject, heads of structural units, director of the programme; or via self-government of students the representatives of which are members of FEEM Council, RTU Senate and RTU Senate commissions, as well as members of RTU Academic Meeting.

The study programme and the study courses included therein are **student-centred**, because different types of students, their **previous knowledge, skills and experience, the diversity of needs** of the students **are taken into account** and respected as much as possible, thus **applying individual learning pathways** to each of them. The implementation of the study programme includes **different** ways of implementing the **content of the study course**. Teaching staff work with student both in large groups (lectures, seminars, etc.), as well as **in small groups or individually**, allowing to use suitable and **diverse pedagogical study methods** in every circumstance.

**As some of the commonly used study methods may be mentioned:** explaining theoretical material and successive performance of actions, step by step, familiarisation with various elements of practical activity, solving/analysis of situational assignments (case study), practising, for example, playing out situations in work environment, use of other methods providing an opportunity for the students to use their knowledge in creative ways and/or adapt for performance of the assignment.

The study process is organised in a way to **facilitate development and independence of students**, while providing **guidance and support of the teaching staff as advisors or mentors**. The study process organised in this way contributes to mutual respect and fosters growth of all parties involved in the study process. At the same time, objective consideration of initiatives and objections is ensured.

At the beginning of each study course, teaching staff inform the students on what changes were made to the study course on the basis of student recommendations and comments, as well as questionnaire results. **Each semester, the programme director discusses with the students factors influencing their opinion on quality of studies**. As a result of negotiations, the director of the study programme may propose changes to the content and methods of the study courses.

**A summed-up achievements assessment approach is used in the assessment of studies**, in line with the decisions of the RTU Senate. At the beginning of the study course, students **are familiarised with the criteria and methods of assessment** in the respective study subject. The assessment results are formed in such a way to give students an insight into the extent to which they have achieved the expected learning outcomes. **Students receive feedback**, which typically provides advice on the learning process and development of competences. Assessment in study subjects is conducted by **teaching staff or examination commission**.

Within the framework of the study course, teaching staff choose study and examination methods depending on aims to be achieved and content of the study course. As the main **assessment methods** for achievement of the outcomes of the study courses and aims of the study programme are selected test, group work, presentation, independent work and examination.

- Test provides an opportunity to ensure that students have understanding in relation to theoretical concepts discussed during the study course and the use thereof.
- Group work provides an opportunity to ensure that students are able to demonstrate comprehensive knowledge on topics discussed during the study programme, and the competence to apply the acquired knowledge practically; it develops the skills for research work, ability to work in a team; correct use of terminology and ability to define and defend



their opinion are assessed during discussions.

- **Presentation** provides an opportunity to ensure that students are able to summarise and present the necessary information, as well as demonstrate their communication skills.
- **Independent work** provides an opportunity to ensure that students are able to evaluate the obtained information independently, systematise it and conduct the necessary analysis; it reflects the knowledge level of the student and their ability to work and analyse literature; it promotes academic writing.
- **Examination** provides an opportunity to ensure that students have acquired knowledge during the study course.

In order to improve ability to develop, supervise, manage and assess the process and performance thereof, project work is conducted for students to work independently while researching and analysing situations, making decisions and supporting these decisions, and making conclusions on situation and its changes.

Once per semester, the students assess the work of the teaching staff in writing (in ORTUS environment) by answering the questions on a **questionnaire**. Students assess the work of the teaching staff: theoretical level of the study subjects; practical exercises; assessment methods and criteria; adequacy thereof for understanding and learning of the material; individual assignments; attitude of the teaching staff towards students; as well as other indicators. Questionnaires are anonymous.

**The assessment of students is consistent**, uniformly applied to all students and is implemented according to the procedures approved by RTU, including procedures approved by FEEM. Students of the study programme have been familiarised with the RTU's applicable procedures for examining appeals of students.

The achievement of aims and results of study courses and programme within the framework of the programme is implemented by organising on a regular basis **seminars and discussions for the teaching staff on learning outcomes and basic quality assurance principles**.

Many and diverse **teaching and learning methods** are used in the pedagogical process: individual and group work; individual and group consultations; presentations of results; project work; simulations of situations (for instance, in risk assessment); tests; oral and written examinations. At the beginning of each study course, teaching staff explain to the students the aim of the study course; identify the knowledge level, previous experience, expectations of the students; as well as obtain other important information. As much as possible, teaching staff and students agree on the process, methods, assessment of studies, etc. Conformity to various groups of students is ensured by combining study methods; students with various needs receive a possibility to acquire knowledge, skills and attitude in a way that is most suitable to them.

Students are able to visit companies within the framework of **study excursions**.

For example, in the course "Information Technologies for Enterprise and Personnel Management", IT companies in Latvia, Accenture, Tieto, Visma etc. are visited. Such field trips take place every year, no less than 6 to 10 in a study semester.

Significant indicator is the analysis of student success (see Table 1).

Table 1

### Student success

<b>Year of studies</b>		<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>
<b>2014/2015</b>	Autumn semester	6.79	7.40	7.36	7.27
	Spring semester	7.13	7.67	7.86	7.94
<b>2015/2016</b>	Autumn semester	6.60	7.0	7.64	7.51
	Spring semester	6.73	7.45	7.56	7.57
<b>2016/2017</b>	Autumn semester	6.16	7.18	7.49	7.84
	Spring semester	6.94	8.01	6.86	7.92
<b>2017/2018</b>	Autumn semester	6.10	6.95	7.47	7.76
	Spring semester	6.69	7.80	8.05	7.33
<b>2018/2019</b>	Autumn semester	6.52	6.46	7.87	7.38
	Spring semester	6.87	7.50	7.58	8.07

When performing analysis, it may be concluded that learning outcomes have increased in comparison with the previous years, and the attitude of students towards studies has also improved.

Ever more actively influence of **mobility** programmes enter the everyday life of the higher education institution, and possibilities of cross-cultural communication increase. Students arriving at FEEM within the framework of mobility are provided with support both at the level of student self-government, and at the level of study programme and faculty management. Here it can be added on how foreign mobility students are supported.

Interconnection of several factors creates **work and learning environment** that is beneficial for fostering study quality, including the above-mentioned link of the study content with the situation in labour market. FEEM study environment and infrastructure is adapted to **various needs of the student groups**, while maintaining a consistent quality of study process. Elevators and an operating lift are ensured for the students with special needs.

It is important for the students to be able to participate in **extracurricular activities** and ensure a healthy lifestyle: RTU offers various sports activities, a possibility to be active in a choir, dance group, etc.

FEEM and RTU in general have in place a stringent and transparent system **for competence development of the academic personnel**. The list of annual seminars can be found in the study direction report.

New, innovative methods are introduced in the study process due to cooperation with foreign higher education institutions, Latvian entrepreneurs and organisations.

**Teaching staff learn innovative study methods** both by self-education and reading special literature, and by taking over experience from their colleagues, discussing with the teaching staff

the most appropriate and effective options in a particular learning situation, as well as when planning assessment of student achievements in a particular study course.

**Gold Fund of graduates has been created in order to celebrate achievements of students;** it includes the most distinguished and capable RTU graduates, evaluating both their academic achievements and public activities. Those graduates of professional Bachelor study programmes “Entrepreneurship and Management” and “Human Resources Management” which have been included in RTU Gold Fund have been summarised in Table 2.

Table 2

**Graduates of the programmes included in RTU Gold Fund**

Year of studies	Graduates of Entrepreneurship and Management	Graduates of Human Resources Management
2013/2014	Ivita Kripe	Kristīne Pūliņa
2014/2015		Agnese Gaidelione and Ivanda Sprūdža
2015/2016	Rita Rēpele and Vija Struka	Sintija Plivda
2016/2017		Agnese Andža
2017/2018	Ilze Kalniņa, Laila Vaišļa and Sintija Ivanovska	Lāsma Meiņa (Trence)

The study program is implemented in four variants, full-time, intramural form and part-time extramural form in Latvian, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 “On the Regulations for the Assessment of Learning Outcomes”, complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 48 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 48 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff

responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and the supervisor's advisory role. For example, in the study courses "Economics" and "Marketing" using the principles of metacognition, students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their achievements, as well as analyzing what they have learned in the course and in the learning process as a whole and discussing that with the lecturer within classes or tutorials.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

**A compulsory component** in the course of the studies of the professional Bachelor programme "Entrepreneurship and Management" is **placement** with the volume of 26 CP. Until 1 July 2019, study placement was implemented pursuant to regulations approved on 29 March 2010 by RTU Senate (minutes No. 539) and pursuant to rules of the structural unit implementing the study programme. On 28 January 2019, RTU Senate (protocol No. 626) approved new procedures for placement organisation effective as of the beginning of study year 2019/2020.

Placement for the programme "Entrepreneurship and Management" is divided into courses of 16 CP and 10 CP. The course of 16 CP is planned in the spring semester of the 3rd year, and the course of 10 CP is planned in the spring semester of the 4th year.

**During the placement of the 3rd year (16 CP)**, students focus their attention on research of the placement location and search for possibilities of improvement within the specialisation they have selected (in accordance with the selected qualification). Students have an assignment to spot and support shortcomings in corporate processes in their location of placement. **During the placement, students become acquainted with the organisational structure of their location of placement, peculiarities of operation; they assess the external environment and perform other activities in accordance with assignments approved in the regulations of placement.** At the conclusion of placement, report on placement is submitted describing the location of placement, as well as providing evidence to existence of shortcomings. **Placement report has a tripartite assessment** – placement coordinator in the company; placement coordinator at the higher education institution; and placement defence commissions.

**During the placement in the 4th year (10 CP)**, students study the company **in the context of the topic of their Bachelor thesis and their selected specialisation.** Time of placement is used for collection of data and information necessary for the Bachelor thesis. **For their placement report, students develop proposals for one shortcoming discovered** at the location of placement within the framework of their selected specialisation. Placement assignments and structure of the report is determined by regulations of placement approved by IBEM. Analogous to the placement of the 3rd year, in this case as well **the placement report has a tripartite assessment** – placement coordinator in the company; placement coordinator at the higher education institution; and **placement defence commissions.**

**Placement coordinator of the structural unit aids the students in providing a location of placement** in line with the decisions of RTU Senate. If additional aid is required, they can address the Career Support and Services Division (see <https://ekarjera.rtu.lv/>), and the **career consultant and project manager** will aid the students in searching and addressing the placement locations, as well as promote development of career management skills via various measures that may ensure successful results in the process of placement.

RTU regularly **organises RTU Career Days**. These are organised both by RTU Career Centre and RTU FEEM Student Self-Government. For instance, from 28 October until 1 November 2019, FEEM student self-government organised FEEM Career Week with participation with representatives of more than 30 companies with whom students could meet in person (see <http://www.ievfsp.rtu.lv/2019/10/24/ievf-karjeras-nedela-2019/>).

In addition, **fostering of practical skills is supported by RTU Development Fund** (<https://www.rtu.lv/lv/attistibasfonds>). Several hundred competitions were held for promotion of practical skills over the year which were organised in cooperation with companies, offering students an opportunity to learn practical skills.

**Placement is implemented in accordance with a tripartite placement contract** which is signed between RTU and the employer on provision on placement, and with the student. **Placement contract includes aims and objectives of the placement, planning of the placement process, assessment procedures of the placement achievements, as well as duties and responsibility of the parties.** When determining aims and objectives of the placement, familiarisation of a student with the management structure and operation principles of the respective placement organisation is included in the placement content. Representatives of those organisations and companies with whom contract on placement implementation has been signed participate in determination of aims and objectives of placement, as well as assessment of placement. **Placement defence commissions have been established for defence of placement.**

**Students present the research results obtained during placement at RTU students' scientific conference and integrate into their Bachelor thesis.**

**Assessment questionnaires and references completed by employers and placement supervisors** prove that students understand and can practically apply knowledge and skills acquired during the study process; they can identify problems related to placement topics; they are able to select the most suitable methods for problem solution management for elimination of problems in corporate processes and for improvement of processes. **Assessments of placement works mostly are positive, from 7 (good) up to 10 (with distinction). Employers and placement managers in companies have attested that knowledge, practical abilities and skills acquired by students correspond to the requirements for professional activity laid down in the professional standard.**

Employers at the companies support our students and have offered regular work offers after completion of studies to those students that have been able to demonstrate their knowledge, creativity and practical skills. For example, AS Latvenergo, Swedbank, MAXIMA, Rimi Latvija etc.

**Administration of the study programme regularly improves the placement programme and assignments in close cooperation with employers and placement supervisors in companies**, as well as following the latest development trends in economy, science, research and on the basis of experience of the international partners.

Students studying in English, as well as students studying in Latvian, the internship have stages/steps: in the 6th semester in the amount of 16 CP and in the 8th semester in the amount of

10 CP. During the internship, students have to be able to apply the theoretical knowledge acquired during the studies in a real work environment in one of the Latvian or international companies / organizations. Student tasks for each stage are described above. **As there are a number of international companies among RTU cooperation partners, English-speaking students have access to almost the same range of internships places as Latvian-speaking students.** Within companies who offer internship could be mentioned: KPMG Baltics, Nordea Bank AB, Agro Express, Euro Live Technologies, PricewaterhouseCoopers, Ernst & Young Baltic, Accenture Latvia branch, NOVOBALTIC, UNILEVER BALTIC LLC, etc.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

**At the completion of the programme, students must develop their Bachelor thesis devoted to current problems in enterprise management.** Bachelor thesis is publicly defended before the State Examination Commission. Commission operates in line with the regulations approved by the Senate of the higher education institution; labour market representatives are included in the commission in accordance with the requirements.

During the implementation process, the study programme is supplemented and updated on the basis of labour market research and consultations with employers and practising specialists. Recommendations of graduates, students and teaching staff of the higher education institution have a critical meaning in improving the study process. Changes are oriented mostly on replacement of a learning style by “teaching to learn” and integration of information technologies in managerial decision-making. Study process is organised in a way that study and research work topics of students would include functional management issues of companies.

**Students obtain skills in research work by working on regular basis with literature and internet resources** to successfully develop study papers, the placement report and the Master thesis. Thus, research work of students, work with the international scientific databases available at RTU library with electronic access from ORTUS environment is fostered as well.

**Bachelor thesis is a serious study developed in line with the topic selected by the student.** Students present the results of their research work at student conferences. **Participation at RTU scientific conference is compulsory for Bachelor students.** For instance, in the study year 2016/2017, 9 students participated in the 58th RTU Students Scientific and Technical Conference; in the study year 2017/2018, 12 students participated in the 59th RTU Students Scientific and Technical Conference; but in the study year 2018/2019, 16 students participated in the 60th RTU Students Scientific and Technical Conference.

**During development of Bachelor theses (less than once per month), Bachelor theses interim tests are organised** in which students present the progress of their research. Work of students is assessed by the commission which represents the teaching staff of the programme and one representative of employers. If in the last test of the Bachelor paper (pre-defence) the commission finds that the student has not fulfilled the requirements laid down for the level of a Bachelor thesis, the student is not permitted to defend the Bachelor thesis. In that case, the student is offered a possibility to improve their work and with the acceptance of the programme director to defend it by the end of the next study semester.

Two months before the defence of thesis, students are given a possibility to present their improved work, while the commission evaluates its compliance with the requirements and makes a decision on further promotion for taking the State Examination. Students who have not produced the work of the appropriate quality are not allowed in the defense procedure.

**Evaluation of 10 (with distinction) is granted by the State Examination Commission only to those students which have summarised in their work studies beyond the requirements of the programme, or the outcomes of their studies have resulted in a scientific publication.**

Table 1 summarizes the grades of the thesis.

Table 1

Summary of thesis assessments			
Study year	Upper level	Average grade	Lower level
2014./2015.	8.8	7.95	7.1
2015./2016.	9.1	8.00	6.9
2016./2017.	8.4	7.13	5.9
2017./2018.	9.0	8.13	7.3
2018./2019.	9.1	8.06	7.0
<b>Grand Total</b>	<b>9.0</b>	<b>7.87</b>	<b>6.8</b>

During the reporting period, students have written bachelor theses in the following thematic areas: marketing and commerce, entrepreneurship and management, business economics and accounting (see Table 2) and Excel table in appendices of this report.

Table 2

Number of final theses in thematic areas				
Year	Thematic area			
	Marketing and Trade Economics	Business and Management	Business Economics and Accounting	Total
2013./2014.	29	45		74
2014./2015.	11	11	19	41
2015./2016.	19	10	22	51
2016./2017.	14	14	16	44

2017./2018.	10	11	16	37
2018./2019.	4	4	17	25
Total	87	95	90	272

Students work out the final thesis in connection with the companies visited during the internship. Banks, service companies, merchants, etc. are among the more common placements. students of the study program have been in 343 places of practice. The companies where the graduates of the study program were in practice were most often listed in Table 3 and in the Excel table attached to the report.

Table 3

Collaboration partners of bachelor professional study program "Entrepreneurship and Management" for placements of internship (more than 3 times in a period between 2013 and 2019).

<b>Company</b>	<b>Times</b>
Nordea Bank AB	11
Swedbank	11
Rīgas Tehniskā universitāte	9
Citadele banka	8
Compensa Viena Insurance Group Latvijas filiāle	4
SEB banka	4
Livland Group	4
DNB Bank ASA Latvijas filiāle	4
KPMG Baltics	4
Agro Express	3
Rīgas namu pārvaldnieks	3
Rietumu Banka	3
Clean R	3
Severstal Distribution	3
ERG Latvia	3
Pie Rāznas	3



Euro Live Technologies	3
Rikon	3
Ivetas Dābolas grāmatvedība	3
Sanitex	3
J E Corporation	3
UKRSTROI	3
Stivuls	3

## 2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.

RTU study quality monitoring and assurance system introduced in 2008 provides that regular electronic surveys of students take place on content of studies and quality of work by the teaching staff via ORTUS environment. In parallel to this assessment, administration of the programme may use several other individually initiated surveys that are used for improvement of study content and quality. Above-mentioned response, as well as response of the administration of the programme to survey results and related changes and improvements to the study process reflect involvement and participation of students, graduates and employers in improvement of the study process.

**The following surveys and approaches are used for assessment of the professional Bachelor study programme “Entrepreneurship and Management”:**

- Semester surveys of students (organised by RTU in a centralised manner via ORTUS environment),
- Annual surveys of graduates (organised by RTU in a centralised manner via ORTUS environment),
- Surveys initiated by the programme director or IBEM administration (held as necessary. Each survey has its own aim and objectives, mostly devoted to improvement of the study process);
- Lesson observation (visitation to lectures and classes by the teaching staff, during which the leading lecturers and administration of the institute observe the lectures and complete the lesson observation sheet);
- Surveys initiated by students (usually initiated by RTU Student parliament or FEEM student self-government, for example, when determining the best representative of the academic personnel);
- Employer surveys at the placement locations of the study programme (organised by the administration of the study programme as a part of placement assessment);
- Employer assessment to SEC (2 (two) times per year, when meetings of the State Examination Commission take place);
- Employer surveys by using FEEM advisor convention or consultative council of the study

programme, and other assessments.

In order to ensure **the principle of democracy, the work of lecturers, teaching staff and professors is assessed by students once a year, replying to the questions of a questionnaire in writing (ORTUS environment)**. In order to ensure the link between the students, teaching staff and programme administration, FEEM student self-government takes a major role by active participation in all above-mentioned processes and annual assessment of the teaching staff. RTU has developed procedures for examination of student complaints.

**Observation of lectures and practical classes** takes place for several years, during which the leading lecturers and administration of the institute observe the lectures and complete the lesson observation sheet; During observation of the lectures, work of the teaching staff with the present students is observed on how the teaching staff involve the students in their lectures. Evaluation is made on how various methodological materials and possibilities provided by technical equipment are used. After the observation of the lecture, discussion of the results takes place with the lecturer, providing recommendations for improvement of work.

**Survey of RTU students takes place on a regular basis** at the end of each semester, in January and in June, after the autumn and spring semester by using electronic study environment via ORTUS. Thus, students can provide feedback on quality of subjects and professional activities of the teaching staff. **Survey questionnaires include questions on availability of study literature for each particular study course; teacher assessment criteria, work culture and quality; respecting the rights of students during classes; time devoted to independent work of students; and study discipline.** Conclusive part of the questionnaire is intended for recommendations and proposals of the students for improvement of the study subject and teacher's work quality. Questionnaires are completed anonymously so that the provided responses would not affect the attitude of the teachers towards the particular student or group of students, and the aim would be achieved – receipt of objective assessment by the students.

A different number of students participate in student surveys in ORTUS environment concerning various study subject; therefore, the obtained data should be evaluated with caution.

Results of the student surveys show that problems exist with duplication of issues examined in study subjects with topics covered in other study courses. In order to prevent this, descriptions of the study subjects and content thereof are regularly reviewed in methodological seminars of teaching staff.

Results of the graduate survey for the survey of study year 2014/2015 show that:

- 77% of graduates believe that ability to perform professional, innovative or research activity has been most likely achieved and 23% say that it has been fully achieved by using theoretical foundations and skills acquired during studies.
- 46% of the graduates believe that ability to analyse information and use it; ability to make decisions, solve problems and participate in development of the respective professional field has most likely been achieved, and 54% believe that it has fully been achieved.
- 77% of the graduates acknowledged that the study programme has ensured adequate competitive education in compliance with international standards and has prepared the graduates for sustainable employment and active civil life in a democratic society.
- Graduates would wish to have less theory and more practical lessons in learning the subject.
- Graduates would wish to receive more feedback and support from the teaching staff.

Results of the survey of study year 2015/2016 (see figure 1) show that:

- 76% of graduates are satisfied with the selected study programme.

- 62% of graduates are fully satisfied with the acquired theoretical knowledge.
- 50% of graduates are fully satisfied with the acquired practical knowledge.
- Graduates highly appreciate preparedness of the teaching staff for their work – 74% of graduates are satisfied with the offered literature and availability thereof.

Graduates point out the necessity to introduce more practical assignments related to real business in the study subjects.

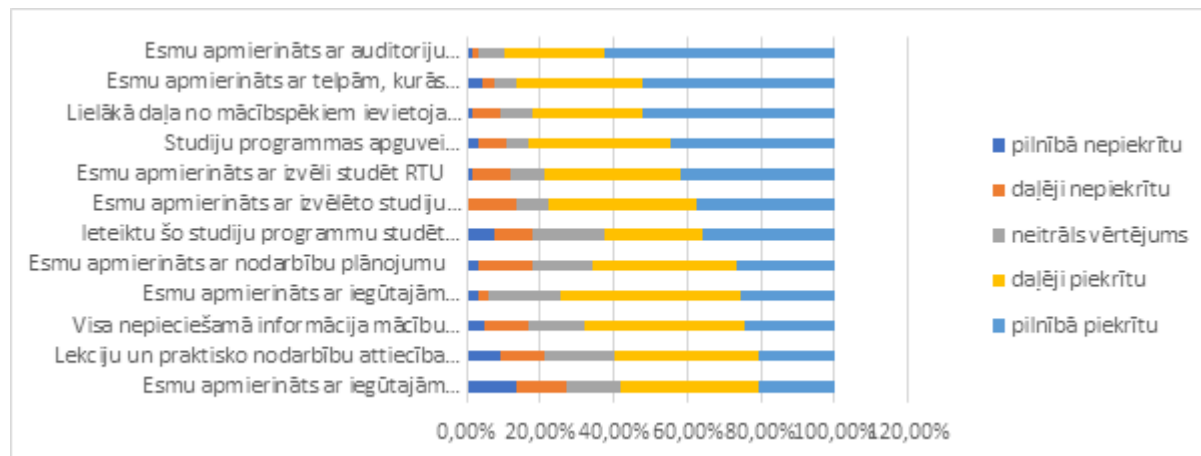


Figure 1 – results of graduate survey (study year 2015/2016)

Results of the survey of study year 2016/2017 show that:

- 58% of graduates are fully satisfied with the acquired theoretical knowledge.
- 51% of graduates are fully satisfied with the acquired practical knowledge.
- Graduates highly appreciate preparedness of the teaching staff for their work – 82% of graduates are satisfied with the offered literature and availability thereof.
- Graduates point out the necessity to supplement the websites of subjects with the methodological literature.

Results of the survey of study year 2017/2018 (see figure 2) show that:

- 80% of graduates are satisfied with the acquired theoretical knowledge.
- 54% of graduates are satisfied with the acquired practical knowledge.
- Graduates highly appreciate preparedness of the teaching staff for their work – 84% of graduates are satisfied with the offered literature and availability thereof.

Graduates point out the necessity to introduce more practical assignments in the study subjects in order to strengthen the theoretical knowledge and receive experience.

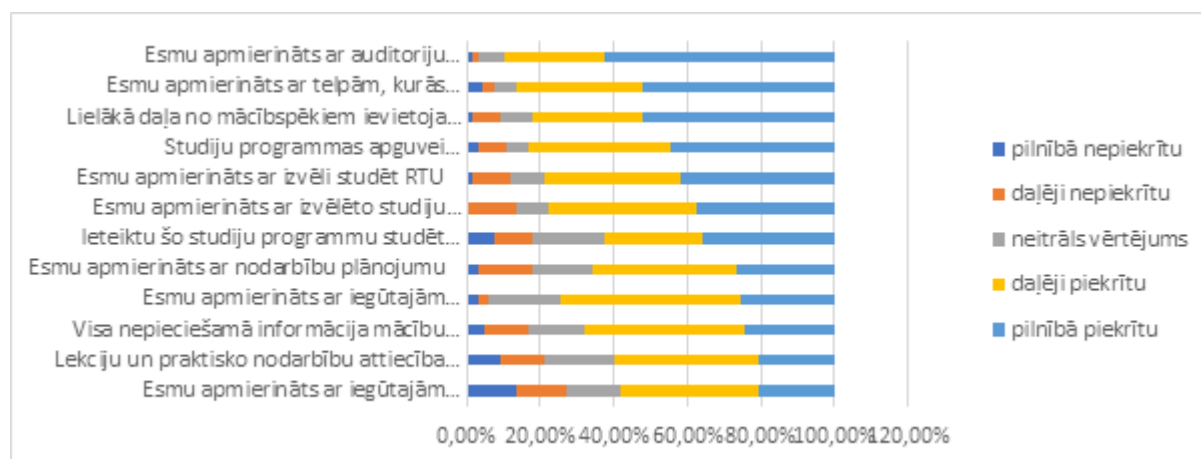


Figure 2 – results of graduate survey (study year 2017/2018)

Survey results for study year 2018/2019 do not significantly differ from the survey results of the previous year (see figure 3); therefore, it may be concluded that aims of the programme are generally achieved, and students are satisfied with the learning outcomes.

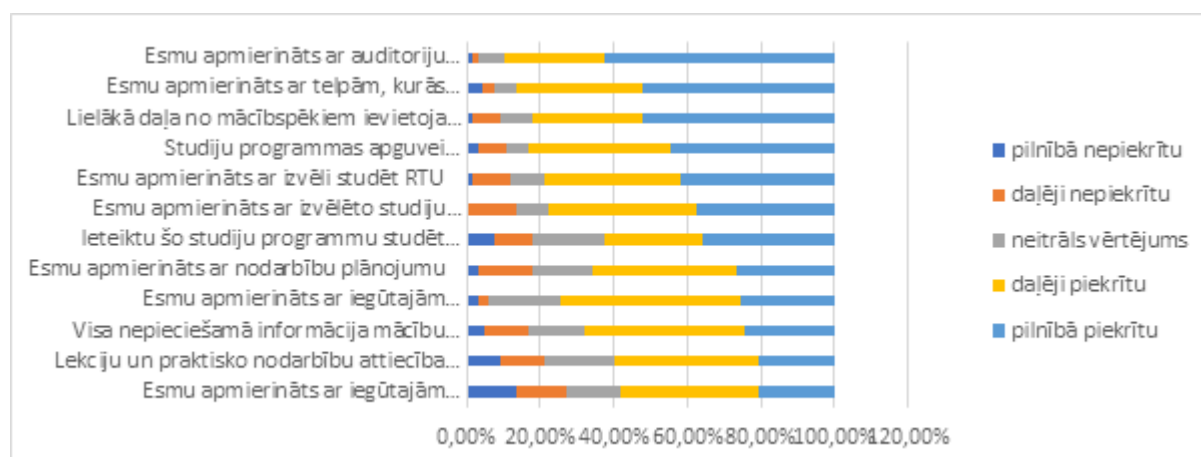


Figure 3 – results of graduate survey (study year 2018/2019)

In comparison with the results of the previous year, students note the support and feedback of the teaching staff during studies. It shows that changes made in the previous study year and methodological seminars held during the year have positively affected the work of the teaching staff. For more information, see the Excel interactive table attached to the report.

Students assess positively the theoretical and practical skills acquired during the studies. As recommendations for improvement they mention:

- more practical classes; necessity for analysis of real situation examples;
- possibility to study foreign languages;
- review of the content of study subjects because information provided in some subject is repetitive;
- to organise excursions to companies at least once per semester, beginning with the first year already to create the idea of theoretical and practical knowledge to be learned in the following study years;
- to review the logical chronological structure of the subjects in order to use the knowledge acquired in other subjects to the best;
- success stories would motivate the students to improve their knowledge and create an idea of career options in the selected speciality, etc.

Assessment of the employers involved in the State Examination Commission on readiness of students for the labour market is positive. Employers welcome the creative and critical thinking of the students and their ability to use various theoretical and practical tools to evaluate the company's activities and their proposals for solutions to the problems.

**On the basis of results of the surveys of students, graduates and employers, changes in study programmes and improvement of study courses took place in study year 2018/2019 and study year 2019/2020.**

**The logical chronological structure of study courses has been revised, ensuring the continuity of knowledge.** For example, in 2019, the professional qualification was changed from “economist” to “financial manager” and two professional qualifications “marketing manager” and “personnel manager” were added to the study program. Specialization starts from the 5th semester, ensuring logical competence development.

In 2018/2019 and 2019/2020 during the study year, **visits to companies were organized in**

**almost every study course** of Part A3 (professional specialization courses) and Part B1 (professional specialization courses). For example, within the study course “Marketing” the companies “Maxima Latvija” and “Rimi” were visited, within the study course “Management Systems Analysis” the students visited the company “Accenture” etc. **In order to provide an opportunity to learn a foreign language and the terminology of the field**, the study course “Social Responsibility and Business Ethics” was provided to students together with a group of Erasmus exchange students and classes were held in English. **Also examples related to the integration of scientific research results in the study process** and the use of project results in study courses can be mentioned. For example, within the framework of the State research program “Transformation of Economy, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society – A New Approach to Creation of a Sustainable Knowledge Society (EKOSOC-LV)” (2014 - 2017), three interdisciplinary projects “Explore the competitiveness of Latvian companies in foreign markets and make proposals for its strengthening”, “Development of innovation and entrepreneurship in Latvia supporting the smart specialization strategy” and “Involvement of society in social innovation processes for ensuring sustainable development of Latvia” were implemented. The academic staff of the study field programs, international researchers, students of the study program participated in the projects by data collection, analysis, interpretation, preparation of scientific articles and monographs, as well as presentation of results in international scientific conferences.

All results obtained during the surveys are used by the programme administration for improvement of the study process. Assessment of the study process, acquired knowledge and practical skills as seen by the graduates each year from a different perspective creates a necessity to review the content of the study programme and the implementation thereof, which is also being done on a regular basis. Improvement of practical skills for the students is still a valid issue. Here the fact should be taken into account that practical skills of students at the completion of studies vary significantly according to the placement they had selected and/or their work experience alongside studies. This is an issue to be solved directly in the context of improvement for the professional Bachelor study programmes.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

**Students gladly use the possibility to supplement their knowledge by studying in foreign higher education institutions. RTU has signed ERASMUS + mobility contracts with more than 100 European higher education institutions.** Higher education institution has developed and implemented a system for provision of outgoing mobility and recognition of study courses completed during mobility. The students use the possibility to participate in mobility events; however, their involvement could be more active.

**Most students use mobility beginning from the 2nd study year up to the time of development of the Bachelor thesis.**

An informative notice on a possibility to participate in student mobility is placed in RTU study portal ORTUS. Director and administration of the study programme inform in person on mobility options offered by RTU. Students apply for mobility by submitting a motivation letter and study plan which is approved by the programme director. On the basis of negotiation results identifying the

knowledge level of the foreign language by the students, their motivation for mobility and other issues, the students use mobility options according to number of available quotas (see the table "Outgoing mobility" in the annex).

Table 8 shows the destinations of student mobility in the professional study program "Entrepreneurship and Management"

Table 8

<b>Outgoing Mobility Professional Study Program "Entrepreneurship and Management"</b>			
Year	Number of students	Country	HEI
2013./2014.	1	E	Universidad de Huelva
	1	NL	Windesheim University of Applied Sciences
	1	DK	University of Southern Denmark
	1	SE	KTH Royal Institute of Technology
2014./2015.	1	NL	InHolland University of Applied Sciences
	1	F	ISC - Paris Business School
2015./2016.	1	E	University of Barcelona
	1	HR	Drustvo prijatelja Biblije
	2	E	University of Huelva
2016./2017.	1	E	University of Huelva
2017./2018.	1	NL	InHolland University of Applied Sciences
2018./2019.	2	CY	University of Nicosia
	1	CY	Frederick University Cyprus
	2	P	University Fernando Pessoa
	1	E	University of Barcelona
	1	D	Pforzheim University of Applied Sciences
<b>Internship</b>			
Study year	Number of students	Country	Place for internship

2013./2014.	1	P	Lookations Lda
	1	HR	Scripture Union Croatia
	1	LT	UAB Sport time
	1	SK	Aqua Verus, s. r. o.

**In study year 2018/2019**, students of RICU0 group of the 3rd year, participated in the student exchange programme ERASMUS held in autumn semester:

- Valters Saulājs(Universitat de Barcelona, Spain);
- Alvis Mešalkins(Universidade Fernando Pessoa, Portugal);
- Ludvigs Studers(Universidade Fernando Pessoa, Portugal);
- Anna Korotkova(Pforzheim University, Germany).

**In study year 2018/2019**, students of RICU0 group of the 2nd and 3rd year, participated in the student exchange programme ERASMUS held in autumn semester:

- Anastasija Lagodzinska(Frederick University, Cyprus);
- JunitaĀriņa (University of Nicosia, Cyprus);
- Agnese Pidrika(University of Nicosia, Cyprus).

**Recognition of study courses acquired during the mobility takes place in accordance with** RTU Vice-Rector for Studies Nr. 01000-1.1 / 240 of the Order "On Amending the Erasmus + Student Mobility Arrangement" and the Order of 4 April 2016 No. 02000-1.1 / 29 Order "On Recognition of Study Courses Acquired in Other Higher Education Institutions and Study Programs". Recognition of the ERASMUS + period is made by the study program director upon the student's return from ERASMUS + studies, based on the student's transcript of records and a pre-signed application for course recognition.

**For a successful recognition of study courses, the student carefully selects the most appropriate partner institution for the study program and field before embarking on ERASMUS + studies.** The student's course of study must coincide wholly or in part with the courses offered by the selected partner HEI, which is also coordinated in the application form with the ERASMUS + coordinator of the structural unit and approved by the study program director.

During the recognition process, the grades obtained during ERASMUS + studies are not converted into a 10-point grading scale, but successfully completed partner institution courses are written "recognized", thus recognizing the partner institution's credit points. If the course recognition application foresees changes in the study program and the student has been successful during ERASMUS + studies, an order of the Vice Rector for Studies regarding individual changes in the study program is prepared. Once an order has been issued for the individual amendment of the study program, the courses of the partner higher education institution shall be entered in the RTU Register of Study Courses and the student's individual plan shall be amended to include the courses acquired abroad. Modifications to the study program shall only be made at the expense of the Part B courses by replacing the courses with those of the partner higher education institution.

**In the overall assessment it can be considered that the degree of mobility of the students of the program is high and the level of knowledge of the students corresponds to the level of knowledge, skills and competences of the study courses implemented by other internationally recognized higher education institutions.**

In the autumn semester of the study year 2018/2019, 3rd year RICU0 group students participated in

the ERASMUS student exchange program:

- 1 student (Universitat de Barcelona, Spānija);
- 1 student (Universidade Fernando Pessoa, Portugāle);
- 1 student (Universidade Fernando Pessoa, Portugāle);
- 1 student (Pforzheim University, Vācija).

In the autumn semester of the study year 2018/2019, 2nd and 3rd year RICU0 group students participated in the ERASMUS student exchange program:

- 1 student (Frederick University, Kipra);
- 1 student (University of Nicosia, Kipra);
- 1 student (University of Nicosia, Kipra).

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

**The resources available for the implementation of the study programme are sufficient to ensure the achievement of the learning outcomes indicated in the study programme at present and in the long term.**

he following facilities are used in the implementation of the program:

- Auditoriums (both for lectures and practical classes);
- Computer rooms;
- Resource room;
- RTU Scientific Library.

The **study base** for students of the study programme, as well as teaching staff and employees, is primarily **available in the electronic study environment ORTUS**. The system is a comprehensive single identity and login system. The portal provides an e-study environment, a career section, a virtual class and session plan system, a system for support for scientific activities, information for employees, a base of laws and regulations and a project management system. **Extensive informative resources** are available to students and teaching staff using ORTUS, **including library resources, which are constantly being updated**. Students have access to databases subscribed by RTU Library:

- **ProQuest Ebook Central** contains approximately 51,700 full-text e-books published by the world's leading scientific publishing houses – Elsevier, Wiley, Springer, Oxford Press, Emerald



etc. in various fields of science, as well as in economics, finance, and business.

- **ScienceDirect** – a database of scientific, technical and medical articles by Elsevier. Over 2,500 full-text journals (Freedom Collection) have been made available since 2002 and 354 full-text books in various fields of science, as well as in economics, finance, business, management and accounting.
- **Academic Search Complete EBSCOhost** – 8,800 full-text periodicals in various fields of science, as well as in economics, finance, business, management and accounting.
- **Applied Science & Technology Source EBSCOhost** – 1,200 full-text periodicals (applied mathematics, computer science, artificial intelligence, robotics, mechanical engineering, aeronautics, power engineering, chemical technology, and textile industry).
- **Business Source Ultimate EBSCOhost** – 5,100 full-text periodicals (management information systems, management, production management, marketing, economics, finance, accounting, international trade, and insurance).
- **EBSCOhost eBook Academic Collection** contains approximately 180,000 full-text ebooks in English, published by the world's leading scientific publishing houses in various fields of science, including economics, finance, business, management, and accounting.
- **Wiley Online Library** has more than 1,360 full-text journals (Full Collection) since 1997 in various fields of science, as well as in economics, finance, business, management, and accounting.
- **SpringerLink** has approximately 13,100 books published by Springer in the period of 2014–2018 in various fields of science, as well as in business and economics.
- **The International Monetary Fund (IMF) eLibrary** offers access to important global economic information – IMF resources, periodicals, books, statistical databases and studies on macroeconomics, financial crises, globalization, trade, international relations, politics, etc.
- **LETA** fields: Construction and Real Estate, Macroeconomics, Industry, Trade and Services, Transport and Transportation, Tourism, Hotel Business.

**Each student is also provided with access to study and scientific laboratories and resources of science.** The **scientific base consists of laboratories, databases, various software, and extensive scientific resources** that are available to RTU. Students of the study programme have access to FEEM Bloomberg auditorium, FEEM creative laboratory, “Laboratory House” of laboratories in physics, metrology laboratory in the Faculty of Mechanical Engineering, Transport and Aeronautics, RTU Design Factory. Students of the study programme have access to the resources of other faculties as well, as the common use of resources is promoted.

Students have access also to international databases in RTU ORTUS environment: Web of Science, EBSCO, SCOPUS, SCIENCE DIRECT, SpringerLink full text journals and books, database of Latvian standards, etc.

Study process is fully ensured with the latest study literature which the students receive at RTU Central Library or as a subscription to textbooks, and it may be used throughout the duration of studies. RTU students and teaching staff have access to an extensive and advanced RTU scientific library (Kīpsala, Paula Valdena Street 5); there they may use all types of educational literature, as well as electronic subscribed databases, and trial databases for a short period of time. The reading room of the library is open to RTU students 24/7 because 24/7 reading room of the Scientific Library is a place where students can study late at night, outside the working hours of the library or faculties.

**Annually different materials and text books have been acquired for the purposes of ensuring the library resources of the study programme.**

In 2018, free access reading room was created in the premises of the faculty (at the basement

level) where the students can familiarise themselves with the study materials, methodological and scientific publications developed by teaching staff of FEEM.

**“Bloomberg Services” laboratory with an extensive database is accommodated in the faculty.** It includes all global financial data, data on companies, securities, transactions, marketing events and various taxes. Students have access to more extensive real-time databases, studies and analytic tools. Laboratory contains 12 special terminals that are available to all RTU students and researchers.

FEEM premises contain pre-prototyping laboratory of RTU Design Factory “theLAB”, or an open-type laboratory in which the students can materialise their inventions by using technological possibilities offered by 3D printing, laser cutting and engraving, plotting, large-format printing and other tools. In the laboratory, students have access to various tools, 3D printer, materials; workplaces have been created where they can turn their idea into a prototype, or at least make templates. Within the framework of the study course “New Product Design and Development Methodology”, students of the programme “Entrepreneurship and Management” are able to work at “TheLab” of FEEM and afterwards at RTU Design Factory.

Students of the programme “Entrepreneurship and Management” have access also to computer laboratories (with 50 and 22 workplaces) which are equipped with software necessary for various types of professional activities, for example, SPSS.

The source of funding for the programme comes both from the state budget, as well as tuition fees paid by the individuals. For the study year 2019/2020, **80 study places funded by the state budget** have been assigned to the programme.

Implementation costs of the programme are variable:

- Full-time tuition fee for the **autumn** semester of the study year 2013/2014 was set at LVL 990.00 per year; part-time tuition fee – LVL 640.00 per year. Full-time tuition fee for the **spring** semester of the study year 2013/2014 was set at EUR 1,408.64 per year; part-time tuition fee – EUR 910.64 per year.
- Full-time tuition fee for the study year 2014/2015 was set at EUR 1,600.00 per year; part-time tuition fee – EUR 1,000.00 per year.
- Full-time tuition fee for the study year 2015/2016 was set at EUR 1,650.00 per year; part-time tuition fee – EUR 1,100.00 per year.
- Full-time tuition fee for the study year 2016/2017 was set at EUR 1,650.00 per year; part-time tuition fee – EUR 1,100.00 per year.
- Full-time tuition fee for the study year 2017/2018 was set at EUR 1,700.00 per year; part-time tuition fee – EUR 1,100.00 per year.
- Full-time tuition fee for the study year 2018/2019 was set at EUR 1,700.00 per year; part-time tuition fee – EUR 1,100.00 per year.
- Full-time tuition fee for the study year 2019/2020 was set at EUR 1,750.00 per year; part-time tuition fee – EUR 1,200.00 per year.

Actual costs of the study programme “Entrepreneurship and Management” are as follows:

Year of studies	Grant for the programme	Tuition fees for the programme	Total funding for the programme	Costs per 1 student
2012/2013	LVL 12,874	LVL 92,513	LVL 105,387	LVL 1,602

2013/2014	EUR 20,595	EUR 75,749	EUR 96,344	EUR 2,280
2014/2015	40404	73385	113790	2280
2015/2016	57886.22	66201.4	124,087.62	2279.62
2016/2017	61,608.76	67,290.86	128,899.62	2279.62
2017/2018	58,320.33	83,656.52	141,976.85	2382.59
2018/2019	60,764.28	73,574.64	134,338.92	2,494.05

**It can be concluded that in general the resources and provision of the study program are adequate to the needs of the study program, while at the same time there is always discussion about increasing the number of budget places in the study program.**

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Teaching staff of the Institute of Business Engineering and Management (IBEM), as well as teaching staff from other structural units of the university, and visiting lecturers – industry specialists are involved in the implementation of the Bachelor’s study programme “Entrepreneurship and Management”. Personnel renewal measures are taken on a regular basis within the scope of the programme ensuring proper quality of the implementation of the programme and compliance of the study programme with the requirements specified in regulatory enactments.

The elected academic staff of RTU is responsible for the content and creation of study courses. Study courses are implemented in close cooperation between the director of the programme and heads of departments. The study programme is implemented by the elected academic staff and doctoral students of RTU, as well as visiting lecturers – industry professionals and visiting lecturers. The study programme is mainly implemented by teaching staff holding a doctor’s degree. There is also teaching staff holding a Master’s degree, who are involved based on Section 39 of the Law on Institutions of Higher Education. In the reporting period, a trend is observed for the increase of the number of members of teaching staff holding a scientific doctoral degree, professors and teaching staff, who are doctoral students.

**The general education courses “Civil Defence” and “Work Environment and Ergonomics” are**

implemented by the teaching staff of the FEEM Institute of Occupational Safety and Civil Defence. The study course “New Product Design and Development Methodology” is implemented by the FEEM Department of Innovation and Business Management.

**Field-specific theoretical main courses and information technology study courses** are implemented by several departments. The study course “Mathematics” is implemented by teaching staff of the Department of Engineering Mathematics, study course “Mathematics (special course)” – by teaching staff of the Department of Probability Theory and Mathematical Statistics, study course “Physics” – by teaching staff of the Department of Materials Physics, study course “Business Intelligence Technologies” – by teaching staff of the FEEM Department of Innovation and Business Management, study course “Economics” – by teaching staff of the FEEM Department of the Territorial Development Management and Urban Economics.

**Professional specialisation study courses** are implemented in several directions. In the direction *Humanities and social study courses*, the study course “Organisation Psychology” is implemented by the teaching staff of the Department of Engineering Pedagogy and Psychology, study course “Business Management” is implemented by lecturers of the FEEM Department of Innovation and Business Management, the study course “Intercultural Communication” is implemented by the FEEM Department of International Business, Transport Economics and Logistics and the study course “English” is implemented by teaching staff of the Faculty of E-Learning Technologies and Humanities.

Teaching staff in the Bachelor’s study programme “Entrepreneurship and Management” is gradually changed or renewed. This ensures constant and regular improvement of the study course. Members of teaching staff (as it has already been specified above) perform regular professional improvement, participate in mobility and experience exchange activities allowing to supplement and change education methods on a regular basis (in accordance with student-centred education principles described in Paragraph 2 of the report), as well as improve and update the content of the study course. The total assessment of the quality of work of teaching staff is positive.

**Measures have been taken in a targeted way within the faculty to make changes in teaching staff have a positive impact on the development and the quality of implementation of the study programme, as well as on compliance with the requirements specified in regulatory enactments.**

Changes in the teaching staff of the program since 2013/2014. study year is with positive dynamics. The total increase is + 182%, which can be explained by the well-thought-out implementation of the personnel policy, continuous updating of the teaching staff (changes by study years are shown in Table).

Changes in the composition of the teaching staff in the study program since 2013/2014

<b>Ceased work in the programme</b>	17
<b>Persons involved in the implementation of programme in total, incl.:</b>	31
Involved as teaching staff (after obtaining a doctoral degree)	7
Involved as teaching staff (starting their employment relationship with RTU)	13

Involved as foreign teaching staff	1
Involved as an expert	10
<b>Increase (%)</b>	<b>182</b>

**The most common reason why teaching staff cease work in the study programme is termination of their employment relationship with RTU (retirement).**

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The qualification of teaching staff involved in the implementation of the study programme corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and respective study courses (see also CVs of teaching staff).

**Dr.oec. professor Elīna Gaile-Sarkane** has over 20 years of academic and scientific work experience in a higher education institution. In addition to a doctoral degree in economics Elīna Gaile-Sarkane has Bachelor degree in engineering (Bachelor degree in chemistry), which provides an excellent basis for academic and research work in innovation, management and business areas, therefore scientific research of professor focuses on interdisciplinary areas covering management science, innovation management, technology transfer and different aspects of business. E.Gaile-Sarkane has over 150 scientific publications in management, economics and related areas. More than 35 of them are published in internationally recognised editions or at conferences with indexing in international databases (for example, Thomson and Reuter, Scopus, EBSCO, etc.). E.Gaile-Sarkane is the author and/or co-author of 4 textbooks, 3 monographs, 1 patent. She is a supervisor of 10 (ten) doctoral students and four doctors of economics have defended their doctoral theses under her supervision. Prof. E.Gaile-Sarkane is a member of the RTU Doctoral Council P-09, an expert of the Latvian Scientific Council, an expert of the Czech Grant Agency, a member of many international organisations, a member of the joint council of professors of the RISEBA University of Applied Sciences, BA School of Business and Finance and Ventspils University of Applied Sciences in the area of management and economic sciences. It is important to note the contribution of prof. E.Gaile-Sarkane to the development of science, which includes organisation of scientific conferences, participation in international scientific conferences, work of a reviewer in international scientific journals in the last 5 years. E.Gaile-Sarkane has prepared and cooperated as an expert, researcher and project leader in 7 international projects (over 20 projects in total since 2001) promoting interdisciplinary, international cooperation with an important contribution to the improvement of the Latvian education system.

**The leading researcher of FEEM Nadežda Semjonova** has a doctoral degree in economics, she performs scientific research work, participates in international conferences, seminars and courses. Research and academic experience fully correspond to the specifics of the study course. The obtained knowledge and skills are successfully integrated in study courses ensuring that students successfully achieve learning outcomes. The qualification of N.Semjonova helps students to familiarise with international and national regulatory enactments regulating quality systems, as well as related investments and operational costs, to select and use correct and effective mathematical methods to evaluate the current situation in Latvian or foreign companies, as well as to build competence to develop proposals for optimisation of costs of a quality system.

**Assistant professor, candidate for a scientific degree Līga Kamola** has obtained a Master's degree in education sciences (Mg.educ.) and company management (Mg.oec.) from the University of Latvia, as well as completed doctoral studies as a candidate for a scientific degree in the FEEM study programme "Management Science and Economics", she currently continues to work on her doctoral thesis. In addition, supplements knowledge about latest trends in the sector and science at different local and international courses seminars, professional and scientific conferences. Her pedagogical experience at the university is more than 10 years, she participated in research projects. The improvement of research skills is ensured by developing a doctoral thesis and writing scientific articles. In the study process students develop skills in conducting research and analysing results in different group work, research projects and case studies.

**Deniss Ščeuļovs** Dr.oec., assoc. professor participates in qualification improvement activities related to academic and professional activity of a director of the programme on a regular basis. In 2017, a qualification improvement course "Methodology of Teaching Creation and Development of New Products" in the amount of 160 acad. hours was mastered (certificate PNI No. 003140). On 23 February 2018, assoc.prof. participated in the qualification improvement seminar for FEEM academic staff "Plagiarism, infringement of copyright and preventive measures" (2 contact hours, certificate PNI No.003486). On 2 March 2018, qualification improvement course "Is the study process at RTU qualitative?" (4 hours, certificate PNI No.003682). Deniss participated in the RTU FEEM academic conference "Integration of methodological and scientific teaching work in the study process", which took place on 27 April 2018. On 29 January 2019, RTU FEEM qualification improvement seminar "Formulation and procedure of development of topics of graduation papers" (1 contact hour, certificate No.28). On 26 February 2019, RTU FEEM qualification improvement seminar "New internship organisation procedure at RTU" (1.5 hours, Certificate Serial No.65). On 1 March 2019, RTU FEEM qualification improvement seminar "Corporate culture - how to reduce internal friction and multiply external possibilities" (2 hours, certificate No. 82). On 12 April 2019, he participated at the RTU FEEM academic conference "Transversal skills based education in schools and its effect on higher education" with a presentation and publication "Latest news and trends in e-commerce and e-marketing" (Certificate Serial No.156). On 8 May 2019, Deniss participated in a training for AIC experts on quality evaluation guidelines, methodology and ensuring the e-platform accreditation and licencing process (7 hours, certificate No.373). On 16-18 June 2019, he participated in NICE Network (The New Initiatives and Challenges in Europe (NICE) *Network is an inter-university network of over 30 partner institutions from 21 countries in the Enlarged Europe, the Middle East, Australia and Asia*) annual meeting "MEGA Making Higher Education Go Ahead", participating in workshops "Teaching an international classroom: more than teaching in a foreign language-online learning and guidance course", "Blended Learning", Techniques of Lateral Thinking for Creation of New Solutions & Business Ideas", KYKYLAAKSO Learning Model & FIT test: two models for coaching (business) students, etc. On 26-27 August 2019, Deniss Ščeuļovs participated in the workshop "Problem based learning in creative education" (20 acad.hours). Assoc.prof. Deniss Ščeuļovs is also a professional member in the UIIN (University Industry Innovation Network) network. This is a dynamic network committed to

drive innovation and business in cooperation with universities and industry representative. Devoted to knowledge exchange, finding solutions and establishing relations. Regular participation in qualification activities significantly helps to achieve learning outcomes, as well as promotes ensuring of high quality and improvement of the programme. Assoc.prof. Deniss Ščeuļovs works in the area of research making publications in International scientific editions and participating in International Scientific Conferences on a regular basis. Research results are used in the taught study courses.

**Ilze Judrupa, Dr.oec., associate professor,** author and co-author of several scientific publications. Co-author of the monograph "Evaluation of Competitiveness of Latvian Regions". Research components in work with students are ensured by active participation in qualification improvement seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific contract work. Author and co-author of several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. The qualification of I.Judrupa corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course "Economics".

**Jelena Malahova, Dr.oec., associate professor.** Research components in work with students are ensured by active participation in qualification improvement seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific contract work. Within the scope of the study process students learn latest information in accordance with Regulations of the Cabinet of Ministers No. 716 "Minimum Requirements for the Content of the Mandatory Course in Civil Defence and the Content of Training of Employees in Civil Defence". Author and co-author of several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. The qualification of J.Malahova corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course "Civil Defence".

**Inga Lapiņa, Dr.oec., professor.** I. Lapiņa has a scientific doctoral degree in economics with specialisation in management sciences and a Master's degree in education, as well as higher education in economics with specialisation in statistics. More than 23 years of experience in the field of higher education: management of the study process, research, quality assessment and management of international projects. Cooperated in the field of development of the education system as an expert, researcher and project leader in more than 20 projects and researches promoting interdisciplinary and intersectoral international cooperation and research with an important contribution to the improvement of the Latvian education system. From 2008, has obtained experience in over 20 expert workgroups in assessment of higher education institutions, study directions and study programmes. Presently, is working as a deputy chairwoman of the Study Quality Commission. Participated in higher education quality assessment activities organised by the Quality Agency for Higher Education of the Academic Information Centre, read lectures and provided consultations at seminars of the Latvian Student Union on the development and quality assurance in higher education. Has extensive international experience in quality assessment, including from participation in the Lithuanian Centre for Quality Assessment in Higher Education and International Quality Accreditation (IQA) CEEMAN expert groups. I.Lapiņa is a representative of RTU in the American Society for Quality – ASQ, United States, as well as a representative of RTU FEEM in "Principles of Responsible Management Education - PRME", UN Initiative, United States. Actively acts as a representative in the Latvian Standard standardisation technical committee

LVS/STK/10 "Quality Management and Quality Assurance" and LVS/STK/49 "Development and Harmonisation of Terminology".

**Ingūna Jurgelāne - Kaldava, Dr.oec., associate professor.** Professional experience: researcher and leader of several international projects. The research component in work with students is ensured by participation in international conferences, development of publications in internationally recognised volumes of scientific articles, etc. Different research methods, incl. statistical ones, are used for reflection of research results in publications, their creation, which allow familiarising students with the results obtained in research. Co-author of textbook "Economic Statistics". Author and co-author of several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. The qualification of I.Jurgelāne - Kaldava corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course "Economic Statistics". Different teaching methods are used in the study course allowing students to master collection, summarising and analysis of statistical information in the field of the specific study programme using up-to-date information and data.

**Irina Voronova, Dr. oec., professor.** Professional experience: a member (1998) and a member of the board (2002) of the Latvian Actuarial Association, leads seminars on topics like "Methods of analysis of risks of national economy sectors and their practical use in the process of auditing work" at the State Audit Office and "Forensic approach to the analysis of accounting documents" in the Association of Administrators (2019), participation in professional conferences with reports and publications in professional journals. The work at the Latvian Actuarial Association provides knowledge about latest trends and methods in risk management. The research component in work with students is ensured by participation in scientific conferences and development of publications related to quantitative methods in risk assessment in insurance and non-financial companies

**Jana Eriņa, Dr.oec., assoc.prof.** Professional experience: 9 years of academic work experience in a higher education institution. Scientific activity and research has been conducted for more than 9 years specialising in the field of financial services and calculations of costs of vocational and higher education certified by participation in scientific projects and research programmes, participation in international scientific conferences and publications. Expert of the Latvian Scientific Council, Acting Head of the Department of Innovation and Business Management

**Ievīns Jānis, Dr.oec., professor.** Long-term academic, scientific and administrative work experience at the university. Leadership or participation in several international scientific projects. Active participation in performance of contract work. In addition, supplements knowledge about latest trends in the sector and science at different local and international courses (Nord +, Sweden), seminars, professional and scientific conferences. In the study process, students develop and improve skills in conducting research and analysing results in different group work, research projects and case studies, thus ensuring the achievement of learning outcomes.

**Jānis Mazais, Dr.sc.ing., professor.** In parallel to academic, scientific and organisational activity, J. Mazais is actively involved in Latvian and global organisations promoting introduction and development of quality standards, is the chairman of the Accreditation Commission of the Latvian Accreditation Bureau, a deputy chairman of STK LVS/STK/10 "Quality Management and Quality Assurance", a representative of RTU in the Latvian Society for Quality, a member of the American Society for Quality (ASQ) (since 1992). Has developed courses of lectures for Bachelor and Master's study programmes "Comprehensive Quality Management" (in Latvian) and courses "Quality and Environmental Management" and "Quality Technologies and Quality Management" (in English) in other RTU study programmes in parallel developing international reputation and internationalisation



of RTU. Participates in several projects on European and global scale, for example, one of the most important ones was participation in ASQ ISO-TC 176 Study Group on Education in 2006 – 2010, within the framework of which the New Work Item Proposal – Justification Study and ANSI Z1.11 document “The use of the Quality Standard ISO 9001 in Education Organisations” were developed. The identification of the use of the Quality Standard ISO 9001 in education institutions has been a turning point in integration and indexation of quality systems in the education process in Latvia.

**Karine Oganisjana, Dr.paed. assoc. prof.** Associate professor and leading researcher of the Faculty of Engineering Economics and Management (FEEM) of the Riga Technical University (RTU). Academic and scientific work experience at RTU since 2012.

Karine Oganisjana has higher education in physics, English, secondary school and higher pedagogy (doctoral thesis “Promoting entrepreneurial spirit of students in the study process”). Therefore, assoc. professor has extensive interdisciplinary professional interests and research experience, which was obtained when implementing ESF and NRP research projects as a leading researcher or project manager in Latvia, as well as participating in international research projects as a member of ASEM (Asia Europe Lifelong Learning Research HUB) since 2011, as a member of the Management Committee of COST (European Cooperation in Science and Technology) since 2019, as an invited researcher in a project of the Malaysian Ministry of Education (2012-2014), etc. Karine Oganisjana is an LSC expert in economics and business, as well as in education sciences.

Karine Oganisjana has over 60 scientific publications in management, economics, education, research and related areas. More than 16 of them are published in internationally recognised editions or at conferences with indexing in international databases (Web of Science and *Scopus*). Dr. Karine Oganisjana is the author and/or co-author of 2 textbooks, 4 monographs, 4 collections of tasks in physics, 1 industrial design, as well as a scientific editor for 1 monograph.

**Konstantins Didenko, Dr.oec. professor.** Professor of the Faculty of Engineering Economics and Management of the Riga Technical University (RTU). Academic and scientific work experience is more than 49 years.

Konstantins Didenko also has a doctoral degree in economics, is also an engineer and economist in the mechanical engineering economy and organisation speciality, which provides an excellent basis for academic and research work in innovation, management and business areas, therefore scientific research of professor focuses on different aspects of business, economic substantiation of engineering solutions, innovation management, modelling of economic processes.

Konstantins Didenko has over 200 scientific publications in management and economics. More than 20 of them are published in internationally recognised editions or at conferences with indexing in international databases.

**Maija Šenfelde Dr.oec., RTU professor.** Long-term pedagogic and administrative work experience at the university. LSC expert. Author of 4 editions of textbook “Macroeconomics”, as well as author of several scientific monographs in the field of economics. Active participation in scientific conferences to improve own competences, improvement of qualification at different courses and seminars. Participates in annual economic conferences organised by the Bank of Latvia every year, as well as in “Expert talks”. The accumulated experience and constant self-improvement ensures the ability of the member of teaching staff to provide students with necessary theoretical knowledge, as well as familiarise students with pressing issues in macroeconomics, national economy, international economy and possible solutions, which, in turn, develops the abilities of students to evaluate economic, social and political processes in the world and their impact on the Latvian economy. Led and participated in international projects.

**Natalja LĀCE Dr.oec. professor. N. Lāce** graduated the Faculty of Engineering Economics of the

Riga Polytechnical Institute (currently the Riga Technical University – hereinafter referred to as RTU) (1982), obtained a scientific degree of a doctor of economics for her doctoral thesis “Economic justification of the metal saving process in designing of articles” (degree of a candidate in economic sciences, 1990 and Dr.oec., 1993) and for 30 years has been occupying academic positions at the RTU Faculty of Engineering Economics and Management (hereinafter referred to as FEEM). N. Lāce has 12 years of experience as a professor, 9 years as the head of department 12 years as a director of the programme at RTU. Her pedagogical activities include bachelor’s, master’s and doctoral study programmes. Professor Lāce is the head of the Department of Corporate Finance and Economics and the director of the Master programme “Business Finances” at RTU. Scientific interests of prof. Lāce are related to the critical factors of performance of small and medium-sized enterprises and innovation, as well as different financial aspects of business. N. Lāce is an LSC expert in Entrepreneurship and Business, as well as political science, she has extensive interdisciplinary professional interests and research experience obtained when leading scientific projects: “Development of innovation and business in Latvia in accordance with the Smart Specialisation Strategy” (NRP EKOSOC-LV), “Strengthening securitability of the Latvian population by increasing the level of financial literacy (394/2012)” (LSC), “Conducting interdisciplinary research in cross-cultural environment” (ERASMUS), “Development of a training methodology for the implementation of sustainable development in small and medium-sized companies based on the life cycle of a company” (RTU, MoES), etc.

8 doctoral students successfully defended a doctoral thesis under supervision of N. Lāce. Presently, 5 doctoral theses are being supervised.

*Published theses (2013 - 2019):* 2 scientific monographs, part of 1 scientific monograph (indexed in WoS), 60 scientific articles in international editions, 3 books.

Since 2005, 46 scientific articles have been included in the Web of Science database; 47 – in the Scopus database. H-index – 5 (WoS)/h-8 (Scopus).

**Tatjana Tambovceva, Dr.oec, Dipl.ing., professor**, expert in social sciences of the Latvian Scientific Council in the field of economics and business. Her research and academic interests are related to ecologically oriented management, project management in construction, sustainable development. Professor T.Tamboceva improves her professional qualification by participation in the ERASMUS mobility programme on a regular basis. Professor T.Tamboceva is the author of several scientific publications, co-author of books and monographs. The qualification of Prof. T.Tambovceva corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course “Project Management in Construction Business and Real Estate Administration and Management”.

Visiting lecturers from abroad are also involved in the implementation of the study programme:

- On 2015, there was a lecture by Leonardo Piccinetti (*Europe for Business Ltd*) “European research and innovation policy and programs, new challenge for university – industry collaboration”;
- On 10 May 2017, there was a lecture by Alan Barrel (*Entrepreneur in Residence, Centre for Entrepreneurial Learning, Judge Business School, University of Cambridge, UK*) “Renaissance and the Industrial Revolutions of the past to the future”;
- On 17 May 2017, there was a lecture by Pavlo Sheremeta (*Supervisory Board Member, Raiffeisen Bank Aval, Ukraine*) “Impact of fast developing technologies on people, culture and management”;
- In September 2018, a visiting lecturer from the Dresden University of Applied Sciences (Germany) Silke Buhl read a lecture about “Intercultural theories”; “Intercultural Aspects in

Marketing”;

- In September 2018, a visiting lecturer from the Šiauliai University (Lithuania) Vita Juknevičiene read a visiting lecture about “Management of innovation systems”;
- In October 2018, a visiting lecturer from the Wrocław University of Economics (Poland) Karolina Daszyńska-Żygadło read a lecture about “Corporate Sustainability”.

Also visiting lecturers from companies and organizations of Latvia visit each study course at least once per semester.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Academic staff of the study programme gets involved in scientific research in the field of quality management at national and international level and the obtained experience is integrated in the study process.

Teaching staff, who are actively involved in scientific research activity, participate in international conferences, prepare publications in accordance with the topic of the study programme, are involved in the study programme. Latest research results are included in the content of the study programme, thus ensuring continuous updating of the study programme.

Overall, in the reporting period teaching staff of the faculty have prepared 921 publications, and this is described in detail of the report for the study direction. In total, 194 publications have been included in SCOPUS, 200 WoS, 16 Springer, but 175 in other databases.

Thus, for instance, members of teaching staff with the largest number of publications include prof. N. Lāce – 74 publications, prof. Inga Lapiņa – 72, Prof. Tatjana Tambovceva – 66, prof. Maija

Šenfelde – 52, prof. Elīna Gaile-Sarkane – b50, assoc. prof. Deniss Ščeulovs – 37, etc. (see Table 9).

Table 9

Publications of leading teaching staff						
Name surname	Total	SCOPUS	WoS	Springer	Other	Quotes / Citation
Natalja Lāce	74	27	18	4	9	59
Inga Lapiņa	72	21	22	3	11	60
Tatjana Tambovceva	66	7	13	1	6	5
Maija Šenfelde	52	5	14	1	12	7
Elīna Gaile-Sarkane	50	13	14	3	13	1
Deniss Ščeulovs	37	9	6	1	10	0
Jānis Ieviņš	31	6	10	0	9	2
Jana Eriņa	26	11	8	0	7	0
Ilze Judrupa	25	1	3	0	5	0
Karine Oganisjana	22	6	7	1	3	2
Ingūna Jurgelāne-Kaldava	15	8	9	0	5	9
Jānis Mazais	14	2	4	1	2	30

Research is integrated in the study process. This interaction is supplemented and updated by labour market research and consultations with employers and practicing specialists. Changes focus mainly on modern and applied research. The research and study process is organised in such a way that topics of educational and research papers of students included latest news in quality and process management, continuous improvement technology, risks and compliance assessment.

Students obtain skills in research work by working with literature, different scientific databases and internet resources to successfully develop study papers, the internship report and the graduation paper. The graduation paper is a serious research, which develop as a feasible solution to the current problem based on a research in a specific company or area. Students present the results of their research work at student conferences.

The teaching staff involved in the implementation of the programme also participates in scientific conferences.

Project results have a significant impact on the study programs. The projects mainly involve the academic staff and doctoral students most of whom prepare and lead study courses. **Participation in projects allows doctoral students and researchers to provide students and others involved in scientific research with new and up-to-date knowledge.** It helps to develop the ability to independently and critically analyse the results of the projects and the developed

solutions which can be used in the respective fields of research to solve important tasks and to create and manage independent projects.

**The results of programs and research are usually integrated into study courses.** For example, programme “Cooperation to promote innovation and exchange of good practices support Directions in the project of Strategic Youth Partnership “Shake up Start-ups””, Nr. 2015-1-PL01-KA205-014238 (October 2015 – October 2016). **The results are incorporated in the study course “Start-up development” and Start-up development (study project)”.**

**State research program “Transformation of Economy, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society – A New Approach to Creation of a Sustainable Knowledge Society (EKOSOC-LV)” (2014 – 2017),** three interdisciplinary projects “Explore the competitiveness of Latvian companies in foreign markets and make proposals for its strengthening”, “Development of innovation and entrepreneurship in Latvia supporting the smart specialization strategy” and “Involvement of society in social innovation processes for ensuring sustainable development of Latvia” were implemented. The results were integrated in the study program “Entrepreneurship and Management” study courses.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The study programme has a mechanism for mutual cooperation between teaching staff. It promotes the improvement and interlinking of study courses. **The following measures are used to exchange of experience and information related to study work:**

- Teaching staff meetings (at least once per semester);
- Structural unit (department, institute) meetings (at least once a month);
- Academic conference (once a year)
- Seminars, conferences, think tanks and other measures.

The achievement of aims and results of study courses and programme within the framework of the programme is implemented by organising on a regular basis seminars and discussions for the teaching staff on learning outcomes and basic quality assurance principles. **It can therefore be said that there is a mechanism for mutual cooperation between teaching staff, which promotes the development and interlinking of study courses/modules.**

The improvement of the study course takes place on a regular basis based on proposals of students and industry development trends. Lecturers mutually coordinate the study course content, where study projects are developed. During the implementation of study courses, there are regular meetings of teaching staff, where they exchange experience on topics of study courses, as well as the curriculum is developed and improved in discussions by reaching mutual agreement on topics, emphases, responsibilities and compliance with regulatory enactments.

All the teaching staff related to a specific study course are involved in the process of coordination of study courses thus ensuring that the topics covered in the study programme are constantly improved and updated in cooperation with involved industry professionals.

In average, 50 to 60 lecturers are involved in the implementation of the study program annually, excluding guest lecturers from the industry. Based on the number of academic staff elected at RTU, the ratio of students to teaching staff is 1 teaching staff per 12 students. Taking into account that a significant number of professionals from the industry are involved in the program, and by including these lecturers in the calculations, the proportion reaches 1 lecturer per 6 students.

On the other hand, the study program employs academic staff from different RTU structural units, as well as, taking into account the fact that some study courses are acquired together with students of other programs, the relationship between students and faculty must be seen in the context of study direction and faculty, then ratio could be in average 20 students per 1 lecturer.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5-Statistical data on students .zip	5.Pielikums. Statistikas dati par studējošajiem.zip
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6-Compliance with national education standard.pdf	6.Pielikums. Atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7-Compliance with occupational standard.pdf	7.Pielikums-Atbilstība profesijas standartam.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8-Mapping.pdf	8.Pielikums. Kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 - Studies plans.zip	9.Pielikums - Studiju plāni.zip
Descriptions of the study courses/ modules	Kursi_EN.zip	Kursi_LV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-ICU0.pdf	Diploms-ICU0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement between LLU and RTU 2019.pdf	Vienošānās_LLU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11 (1).edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Sample for study agreement.zip	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Innovations and Entrepreneurship

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Innovations and Entrepreneurship</i>
Education classification code	<i>47345</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Modris</i>
Surname of the study programme director	<i>Ozoliņš</i>
E-mail of the study programme director	<i>modris.ozolins@rtu.lv</i>
Title of the study programme director	<i>Praktiskais docents, Dipl. ing. oec., Mg. sc., MBA</i>
Phone of the study programme director	<i>+371 67089394</i>
Goal of the study programme	<i>The aim of the professional Master study program "Innovations and Entrepreneurship" to prepare entrepreneurs and managers for work in companies and organizations of all levels and fields by developing creative thinking and the ability to create new values.</i>
Tasks of the study programme	<p><i>The general tasks of the professional Master study program "Innovations and Entrepreneurship" are as follows:</i></p> <ul style="list-style-type: none"> <li><i>- to improve students' professional skills and abilities;</i></li> <li><i>- to develop analytical skills and stimulate interest in the processes, which take place in the society by analyzing the economic situation of the country and trends of particular sectors, searching for connections, and evaluating the situation in the enterprise, the national economy in general and various fields of management;</i></li> <li><i>- to develop research competence by elaborating Master Thesis and course papers;</i></li> <li><i>- to develop ability to identify problems and solve them, to formulate goals by offering practical and innovative solutions to particular problems in Master Thesis and study courses;</i></li> <li><i>- as a result of the study process, to develop students' intelligence, to promote their mental development, to promote the use of intellectual abilities in the study process and further in their practical activities.</i></li> </ul>



Results of the study programme	<p><i>A graduate of the professional Master study program "Innovations and Entrepreneurship":</i></p> <ul style="list-style-type: none"> <li>- <i>is able to define organizational goals and strategy, are able to plan, organize and manage effective and efficient functioning of the organization in the long-term interests of all stakeholders (state, owners, society, etc.) by applying the acquired business management competencies;</i></li> <li>- <i>understands the nature and importance of innovation, are able to integrate innovation into business;</i></li> <li>- <i>is able to lead new product development by combining theoretical knowledge and practical competencies;</i></li> <li>- <i>is able to lead a team of employees in a dynamic business environment, work in teams, and work individually using their knowledge and leadership skills;</i></li> <li>- <i>is able to represent the interests of the organization and co-operate with other companies, organizations, institutions, including municipalities and state institutions in the national and international environment;</i></li> <li>- <i>is able to argue and explain his/her opinion, discuss professional issues;</i></li> <li>- <i>is able to apply research methods, implement creativity and research in the field of management;</i></li> <li>- <i>isable to start and run a business.</i></li> </ul>
Final examination upon the completion of the study programme	<i>Master Thesis.</i>

## Study programme forms

### Full time studies - 2 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>Academic bachelor degree in social science or comparable education, and at least 3 years of entrepreneurial or managerial experience. English language proficiency test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>Organisation manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 1 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>

Language	<i>english</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification, and at least 2 years of entrepreneurial or managerial experience. English language proficiency test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>Organisation manager</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Part time studies - 2 years - latvian**

Study type and form	<i>Part time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification, and at least 2 years of entrepreneurial or managerial experience</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>Organisation manager</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Full time studies - 2 years - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>Academic bachelor degree in social science or comparable education, and at least 3 years of entrepreneurial or managerial experience</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>Organisation manager</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Since awarding of the license to the study program on September 21, 2016, the title of the degree and qualification has been changed. The change of qualification had been approved by the Riga Technical University Senate on December 16, 2019 (Minutes No. 635).

1. to change the professional qualification awarded for option 2 of the study program (80 credit points) from "manager of enterprises and institutions" to "organization manager;
2. to change the professional qualification awarded for option 2 of the study program, (80 credit points) as follows: "master of business administration and organization manager qualification".

Until February 2020, graduates of the Master's program "Innovation and Entrepreneurship" having a previous professional education have been awarded only a professional Master of Business Administration degree. In these cases, the professional qualification of 'organization manager' was not awarded.

According to the remarks received from the Higher Education Quality Agency in February 2020: "... Please note that following the completion of a professional Master's degree program, it is only possible to award a professional qualification to students who have already obtained an economist's professional qualification at the previous level."

According to the Regulation No. 512 of 26 August 2014 of Cabinet of Ministers "Regulations Regarding the State Standard of Second Level Professional Higher Education", the following draft decision on amendments have been prepared to be approved by the Senate of Riga Technical University on February 24, 2020:

"Award the degree 'organization manager' for graduates of the Master's program "Innovation and Entrepreneurship" (Option 1 of the study plan) (unless such a qualification has been obtained at a previous level of study)"

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Starting from academic year 2016/17 the duration of the studies is two years, before that students with previous academic education had to study for two and a half years.

Each year (except for academic year 2016/17) one student group is admitted to the program. The

tuition language is selected according to the interests of the applicants in the particular year; taking into account the minimal financially feasible number of students in the group. According to the demand, until 2017, studies were implemented bilingually - in Latvian and English. Since academic year 2017/18 study program is implemented in English, which opened the door to a wider involvement of foreign students in the study process.

<b>Academic year</b>	<b>Number of enrolled students</b>
2013/14	25
2014/15	17
2015/16	20
2016/17	-
2017/18	18
2018/19	23

*Source: Riga Technical University (2019)*

In academic year 2013/2014 25 students were enrolled to the first course, in 2014/15 - 17 students, in 2015/16 - 20 students, in 2016/17 there were not enough students to form a group, in 2017/2018 - 14 local and 4 foreign students were enrolled, in the academic year 2018/2019 - 15 local and 8 foreign students were enrolled. The number of enrolled foreign students tends to increase, in academic year 2017/18 four foreign students were enrolled and in the fall of 2019 eight students were enrolled.

The dynamics of the number of students is generally stable. An important aspect that influences the size of a student group is that about 45-50% of those who register on the study program website qualify and start their studies. Thus, applicants who meet the requirements of the study program are selected.

The number of students is also limited by the fact that the program does not receive state funding despite the fact that promoting innovation and entrepreneurship is recognized as a priority for economic competitiveness. Another limiting factor is the ability to study in English. Often, some potential students are not admitted due to the lack of management experience. Interestingly, in some cases, applicants who have not been admitted due to the lack of work experience return to study after this experience has been accumulated.

Every year students with both previous academic and professional education are enrolled. Although the numbers are similar, there is a slight majority of those with professional education. Students have acquired previous education in a variety of higher education intuitions in Riga and other regions, the dominant being Riga Technical University (RTU) and the University of Latvia (LU).

Approximately 60-65% of students complete their studies in the nominal time. The reasons for extending the duration of studies vary, including the increased workload, career changes or personal issues. The most common explanation is the inability to combine studies with work duties or other activities. Other noted trends are not identified here. The reasons for extending studies vary from year to year.

About 10-15% of students drop out. The most common reason for discontinuing studies is career

changes, sometimes it is connected with moving abroad. In some cases, studies are resumed and completed after several years, while in others, the program is completed abroad. Another reason for dropping out is the inability to find balance between work, private life and studies. Interestingly, pregnancy and childbirth are not the reasons for dropping out. New mothers are able to combine studies and family life and complete the program in the nominal time or extended period.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The study program “Innovations and Entrepreneurship” has been developed in accordance with the requirements of the Cabinet of Ministers Regulation No.481 “Regulations on the State Standard of the Second Level Professional Higher Education”, as well as the respective internal normative documents of RTU.

Admission requirements for the study program “Innovations and Entrepreneurship” are a professional or academic Bachelor degree in Management, Economics and Administration, or equivalent education, or professional or academic Bachelor degree in Law and Engineering, or equivalent education. Additional admission requirement is 2-3 years of entrepreneurial or managerial experience, which is an important aspect of the selection process. The requirement for students’ previous professional experience and a careful selection process ensure that the study process is linked to topical business issues and challenges. Students with their different professional backgrounds enrich the study process by forming links with different aspects of business.

The scope of studies and the way of implementation vary according to the previously acquired education. The study program matriculates:

- 1) Applicants with a Bachelor degree and / or second level professional higher education and at least 2 years entrepreneurial or managerial experience. This group of students study full or part-time in extramural form, the total volume of studies is 60 credit points (90 ECTS). After completing all study courses, a 6 CP professional internship and public presentation of Master Thesis, these students will obtain a Professional Master Degree in Business Administration. After amendments which should be approved by RTU Senate on February 24, 2020 the 5-th level Qualification of the Organization Manager will be awarded too.
- 2) Applicants with a Bachelor degree in Social Sciences or equivalent and at least 3 years of business or managerial experience. This group of students study full-time and the total volume of study program is 80 credit points (120 ECTS). According to Clause No 27 of Cabinet Regulations No 512 adopted on August 26, 2014, these students have to undergo an internship in the volume of 26 CP. After the completion of the study program they obtain the Professional Master Degree in Business Administration and Qualification of the Organization Manager.

Upon completion of the professional Master study program, education may be continued in RTU doctoral study program “Management Science and Economics” or in other relevant higher education study programs in Latvia.

The Professional Master Study Program “Innovations and Entrepreneurship” clearly identifies the

unique focus on fostering innovative thinking and stimulating entrepreneurship. The symbiosis of innovation with the academic and practical knowledge necessary for the business environment brings a new vision to the industry.

The results of the study program “Innovations and Entrepreneurship” comply with the requirements of the occupational standard of the manager of an organization. The knowledge, skills and competences acquired in the study program are related to the fifth level of Latvian Professional Qualifications (5th LPQ) and corresponds to the 7th level of the Latvian Qualifications Framework (7th LQF), which is defined in the occupational standard of the manager of an organization. The compliance of the study program “Innovations and Entrepreneurship” with the requirements of the occupational standard of the manager of an organization is shown in appendix.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master’s and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

Since its beginning, the study program has been designed and positioned as a Master degree study program in management education with a focus on stimulating innovative thinking, fostering a new product development competencies and promoting entrepreneurship. The European Commission defined entrepreneurship as follows: “Entrepreneurship is an individual’s ability to turn ideas into action. It includes creativity, innovation, risk-taking, ability to plan and manage projects in order to achieve objectives”(European Commission, 2019). The study courses “Innovation Technology”, “Product Design and Development” and “Entrepreneurship and Business Planning” directly contribute to these competencies necessary for an entrepreneur, and other study courses support the development of these competences. In 2013, the European Commission published a communiqué “The Entrepreneurship 2020 Action Plan” (European Commission, 2019a). for the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. This Action Plan puts forward a set of joint actions to unlock Europe’s business potential, remove existing barriers and radically transform the entrepreneurial culture in Europe. The study program “Innovations and Entrepreneurship” fits exactly into two of the three immediate action areas defined in this plan: Education and Training in Entrepreneurship to Growth and Business and Strengthening the Entrepreneurial Culture in Europe: Bringing up the Next Generation of Entrepreneurs.

The main national priorities, action lines and activity levels of Latvia, which are aimed at the development of industry, promotion of access to financing, innovation and export, as well as improvement of business environment, are included in the National Industrial Policy Guidelines for 2014-2020 (POLSIŠ,2013) (approved by the Cabinet Order No 282 “On National Industrial Policy Development Guidelines 2014-2020” adopted on June 28, 2013). In the framework of Latvia’s

National Industrial Policy, INNOVATION and increasing capacity of innovations are one of the main pillars for improving the competitiveness of Latvian industries and increasing productivity and export volumes.

At the same time, the goals and directions of innovation policy are also defined in the Science, Technology Development and Innovation Guidelines for 2014-2020 (POLSIŠ, 2013a) (approved by the Cabinet Order No. 685 "On Science, Technology Development and Innovation Guidelines 2014-2020" adopted on December 28, 2013).

The study program "Innovations and Entrepreneurship" promotes the implementation of both European and Latvian policies by focusing on training entrepreneurs and promoting innovation, as well as stimulating collaboration between academia and industry.

At the same time, as a Master study program in management, it is in line with the current business education guidelines such as the European Quality Link (EQUAL) MBA Guidelines. "The MBA is a general, postgraduate qualification on the Master's level. It must correspond to appropriate intellectual and academic standards for Master degrees and integrate personal development in them. The MBA is also a post-experience qualification, and the harnessing of prior work experience within a learning group is a unique feature of the MBA program that should be explicitly built upon. It is normally positioned as a career accelerator for experienced management or a means to make a career shift for specialists or practicing managers, and most cases are designed to be suitable for those without a prior degree in a management subject, in addition to those with a management degree. The focus of the MBA is therefore on the integration of management concepts with a practical focus to enable graduates to practice successful strategic leadership in complex situations" (FIBBA, 2014).

The study program "Innovations and Entrepreneurship" provides the settings defined in these guidelines, both in terms of admission requirements, program content and character as well as in the learning outcomes.

Identification of current issues in the sector and a follow-up of labor market development tendencies are carried out in different ways. The academic staff of the program are business professionals with more than 10 years of management experience, knowledge of industry news and labor market trends, which are integral parts of their daily work. Most of the program's academic staff members are active business consultants; they identify current industry issues and problems by researching business needs, analyzing situations and real-life issues, developing solutions, and communicating with business representatives. Current events are also identified through the industry-commissioned research. A part of the academic staff members are authors of seminar programs and organizers of seminars. Current trends in the industry are also identified through reading professional literature, participating in local and international business conferences and seminars. Some academic staff members develop business case studies based on real data from industries in Latvia. Keeping up with the latest developments in industries of Latvia is ensured through the cooperation with professional associations, the most important of which is the Latvian Chamber of Commerce and Industry. All the above mentioned is integrated into the content of the study courses, and the content of the courses is updated regularly, keeping up with current events. Similarly, the academic staff regularly meet and share their experience with each other.

Finally, guest lecturers - industry experts and representatives of companies from industries with a high degree of innovation - are regularly invited for participation in the implementation of study courses.

All the above mentioned ensures integration of actual experience and specific knowledge in the

study process, as well as ensures that the content of study courses is topical and keeps it in line with the development trends in the field.

During the reporting period, minor changes were made to the study program without substantially changing the program structure and content:

- 1) The title of the course “Information Systems Management” (4 CP) has been changed to “Management Information Systems” (4 CP) to reflect the content of the course more properly.
- 2) Balance between mutually complimentary courses “Product Design and Development” and “Innovation Technology” have been adjusted. The number of credit points of the course “Product Design and Development” has been increased from 4 CP to 6 CP. Additional time for prototyping activities have been added. Correspondingly, the amount of CP of the study course “Innovation Technologies” has been reduced from 6 CP to 4 CP.
- 3) The study course “Pedagogy” (2CP) is excluded from the elective course offer. It has been replaced by the “Research Methodology” course, which integrates the of pedagogical skills, while devoting a more attention to strengthening the research skills.
- 4) The study course “Total Quality Management” (4CP) is excluded from the course list. Instead a more comprehensive course “Process Analysis and Management” (4CP) is offered. Competences required for managers in quality management are integrated into the new course.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The Professional Master Study Program “Innovations and Entrepreneurship” combines the core features of the business administration Master Study Program in structure and content, focusing on stimulating innovative thinking, fostering new product development competencies and stimulating entrepreneurship. The **aim** of the study program “Innovations and Entrepreneurship” is to prepare innovative entrepreneurs as well as managers for work in companies and organizations of different sectors by developing creative thinking and ability to create new values.

The learning outcomes of the study process are defined in terms of the graduates’ abilities. Depending on the nature of the results to be achieved, they may be divided into separate groups:

- General management skills that ensure strategic understanding and successful functioning of the organization: “Are able to define organizational goals and strategy, are able to plan, organize and manage effective and efficient functioning of the organization in the long-term interests of all stakeholders (state, owners, society, etc.) by applying the acquired business management competencies”.
- Team Management and Leadership: “Are able to lead a team of employees in a dynamic business environment, work in teams, and work individually using their knowledge and leadership skills”.



- Communication and Co-operation Skills: “Are able to represent the interests of the organization and co-operate with other companies, organizations, institutions, including municipalities and state institutions in the national and international environment, are able to argue and explain his/her opinion, discuss professional issues”.
- Research-related Skills: “Are able to apply research methods, implement creativity and research in the field of management”.

If the above-mentioned learning outcomes could be characteristic of general management study programs as well, then the specific learning outcomes of the study program “Innovations and Entrepreneurship” are related to its specialization:

- Ability to innovate and create new products and services: “Understand the nature and importance of innovation, are able to integrate innovation into business, are able to lead new product development by combining theoretical knowledge and practical competencies”.
- Easy to frame, but a very capacious and complex task to achieve: “Are able to start and run a business”.

The role and connection of individual study courses are illustrated in the mapping of the learning outcomes of the study program (Appendix 8).

The curriculum and structure of the study program are designed in a holistic way to ensure maximum achievement of the planned results. At the same time, the structure and content of the study program comply with the Cabinet Regulations No 512 “Regulations on State Standard of Second Level Professional Higher Education” (Appendix 7).

The study program is structured to ensure logical and sequential acquisition of knowledge, skills and competences, ranging from general management skills to focus on new product development to comprehensive professional business issues and application of the acquired skills and knowledge in the elaboration of Master Thesis.

In the first semester, students begin the program by mastering managerial cost accounting and project analysis, as well as technology and new product marketing. In continuation, creativity, innovation technology and product design and development are successively mastered, providing insights into the specifics of innovation and new product development. Mastering of strategy and change management gives an opportunity to look at the acquired so far from a company strategy perspective, to develop a holistic view on business functions and on their role. An in-depth study of research methodology and knowledge management helps to better understand the process of developing a Master Thesis. During the second year of studies, students continue to take compulsory elective study courses, usually related to the project and process management. Entrepreneurship and Business Planning, as the final course of the study program, it focuses on integrating what has already been learned into planning a new business. Occasionally, though not necessarily a requirement, a project-based design is transferred into real business. Along with the acquisition of study courses, the internship programs are implemented. In the process of elaboration of Master Thesis, students demonstrate professional managerial competence in the field of entrepreneurship, the ability to carry out research, selection, compilation, analysis and interpretation of data, ability to cooperate, understanding of socially responsible entrepreneurship.

The International Student Department provides foreign students with the opportunity to study the state language in addition to the existing study courses. Acquiring the necessary civil and environmental protection skills (according to the regulations of the Cabinet of Ministers) are offered selectively only to those students who have not acquired this knowledge at the previous studies. This course is also acquired in addition to the standard study program.

The content and the scope of examinations correspond to the content of the study courses and the

requirements of professional qualification skills and knowledge. The conditions for passing the course and obtaining credit points are defined in the description of each study course.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Practically students can implement their participation in the improvement of the study process by expressing their opinion to the academic staff of the particular study course or to the administration of the study program. Changes that can be implemented in the study course are put into practice promptly. Others are discussed after data collection at the end of the study course.

In the implementation of the study program, significant attention is paid to the application of the principle of metacognition or “thinking about thinking” in practice. Developing such skills is a critical element for a study program to be considered student-centered and in line with the 21st century trends. The modularity of the curriculum of study program and the active use of information technology in the study process allow the students to review the curriculum and adjust both the load and the learning intensity to achieve the goals set in the study program.

There is a wide range of study methods used in the study process:

- lectures and practical work, case studies - acquisition of theoretical basis and development of individual competences;
- group workshops, seminars, discussions, presentations - to develop practical elements and to balance the overall level of knowledge within the group;
- independent and research work;
- simulations, gamification, creative tests, innovator’s skill set training and other interactive methods.

The planning of the study process and the study intensity differ in the different variants of duration of the study study program due to the different amount of practical placement. The pedagogical methods of studies, including assessment of study results, do not differ. The study courses and competencies to be acquired are identical.

The final assessment of learning outcomes is cumulative. Such an approach stimulates a high-quality implementation of both individual and group activities.

The learning outcomes are evaluated in accordance with the first part of Section 15 of the Law on Higher Education Institutions and RTU Regulations on Evaluation of Learning Outcomes. The final result of the evaluation is set on a 10-point scale in accordance with the regulations of the Cabinet of Ministers.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education**

**institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

An integral part of the study program is internship, which aims at the further development of the student's professional skills and competences in a professional environment, as well as at the consolidation and improvement of his / her knowledge according to the requirements included in the occupational standard of manager of an organization. According to the Cabinet regulations, the study program includes internship amounting to 6 CP and 26 CP. For students whose previous education is academic the volume of internship is 26 CP.

The internship assignment includes both general aspects of research of the company's activities and specific ones, often related to the elaboration of students' Master Theses.

It should be stated, at least two years of practical management experience is defined as a prerequisite for the admission and, in most cases, the internship is a continuation of the previous experience. For this reason, the total amount of knowledge of the functioning of the industry is practically larger than the requirements set by the Cabinet of Ministers. The practical experience of a manager gained by the student in their workplace can be recognized in the volume of 6 CP and included in the curriculum of the study program.

Students are free to choose enterprise where to go for practical placement. International students can get support from the administration to find an enterprise for practice. If necessary, students get reference letter from the programme director to obtain the desired place of practice.

The program administration has gathered contacts of alumni companies, who have agreed to publish their practice offers.

The study programme has a broad range of partners, providing students not only with practices but also offering further career opportunities, such as SEB Bank, Tet, Talentor etc.

**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

All topics of Master Theses are related to real business environment. The final theses, which are developed by Master students, are of two types - solving business problems or developing and launching new products on the market. A Master Thesis consists of three main parts - theoretical, analytical and practical. All parts of the Master Thesis are interconnected and complementary. Proposals offered in the Master Theses must be economically justified.

Business development strategies, business models, development directions are often elaborated and improved within the framework of business problem-oriented Master Thesis. Examples of Master Thesis topics in this group include: "Development of the Fast Food Trade Franchise Business of Pica Lulu"; "Development of the Strategy to Enter a New Market for "Sportswear of Tomorrow" Ltd.". Often, Master Thesis also include search for solutions in specific areas of business which concern personnel, marketing, quality management, process management, etc. Examples of topics in this group are: "Improving Quality Program at DB Schenker Logistics Centers"; "Improvement of Personnel Management System at PPU Ltd."; "Improvement of

Marketing Strategy for Galerija Centrs Shopping Mall". The business sector is the most typical subject for a Master Thesis.

In some cases, Master students find it challenging to use business tools to solve public sector problems. Examples of topics are: "Implementation of Process management Approach in Governance of Riga Technical University" or "Application of Business Management Approach for Process Optimization in the Ministry of Finance of Republic of Latvia".

Sometimes Master Thesis solutions have been developed for the implementation in the municipal sector, for example, "Development of Support Mechanism for Innovative Entrepreneurship in Jurmala City".

Often, a Master Thesis provides a rationale for the introduction of new products or services, a typical theme is "New Product Development for Enhancing Mobility of Disabled Persons".

Some Master Theses are further developed in business. For example, the brand "MILZU!", which was developed within the Master Thesis written by Enno Ence, who graduated from the program "Innovations and Entrepreneurship", has been transformed into a growing and award-winning business. In 2015, the company received the Export and Innovation Award, the Import Replacement Product Award, and in the period 2016-2019 the cooperation to create added value of the product has continued.

The graduate papers are evaluated by the State Examination Commission, where the majority of members are industry representatives. The evaluation of the Master Thesis is complex. It is calculated according to a special formula. The final grade consists of both the Master Thesis supervisor's assessment and the reviewer's assessment, as well as the assessment of the public presentation of the Thesis. The final grade is the result of the decision of the State Examination Commission.

In the reporting period, Master Theses received the following evaluations: 5% "outstanding" (10), 15% "excellent" (9), 39% "very good" (8), 20% "good" (7), 16% - "almost good" (6), 5% - "satisfactory" (5).

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

Various tools are used to improve the content and quality of studies, including surveys of students, graduates and employers, thus gaining a holistic view of the study process and its quality.

The opinion of the students about the study process is accumulated during studies, both in the form of discussions and questionnaires, and if necessary, changes in the implementation of the study course are made.

Up to 85% of students have listened to the study program graduates' views and recommendations, which is an important factor in attracting new students, taking into consideration the need to compete with state budget funded study programs as well as other management study programs.

The views of students and graduates are reflected in the international Eduniversal ranking, which provides a feedback on the graduate survey. The program "Innovations and Entrepreneurship" in 2019 is recognized as the best in its field in Eastern Europe.

(<https://www.best-masters.com/ranking-master-innovation-and-project-management-in-eastern-europe/innovations-and-entrepreneurship-riga-technical-university-faculty-of-engineering-economics-and-management-feem.html>).

Students evaluate the study process both after completing specific study courses, at the end of the academic year, and after the graduation. Study course surveys are collected and analyzed together with academic staff. Any suggestions, modifications, enhancements, or retention of the existing setting will be taken into account. For example, in academic year 2013/14 students recognized study course “Managerial Cost Accounting and Project Analysis” as one of the most valuable, despite the fact that 90% of students still mark it as a difficult subject.

In academic year 2014/15 students positively assessed the academic staff who implemented the study course “Product Design and Development”. Module 1 and Module 2 of the study course were led by the experienced guest lecturers from Norway - Rolf Qvenild and Arnt Farb in collaboration with RTU Professor Elīna Gaile-Sarkane. The novelty in the implementation of the study course was prototyping product at the newly created RTU Design Factory, where the mastering of prototyping was assisted by RTU experts Charles Bušmanis and Guntis Kulikovskis. Students recognize that acquisition of prototyping skills on modern equipment has provided invaluable practical input throughout the course. Changes have been implemented taking into account the technical equipment available at the university and the recommendations of students for prototyping with professional equipment.

In academic year 2015/16, work of lecturer of the study course “Innovation Technology” Vita Brakovska and the guest lecturers Inese Suija-Markova and Uldis Cimdiņš was evaluated as excellent. Successful feedback on both homework, essays and exam results was mentioned.

Elaboration of a Master Thesis can often be difficult because students have to focus on individual research. Therefore, since academic year 2016/17 students have been offered a study course “Research Methodology” taught by Karine Oganisjana. Students appreciate the professionalism, knowledge and experience of the lecturer, which made the course a valuable first step in the process of elaborating the Master Thesis. Given the specifics of the course, it seemed too theoretical and voluminous for some students, especially if the topic of Master Thesis was not yet defined.

In academic year 2017/18 in the study course “Entrepreneurship and Business Planning” students valued practical tasks, the analysis of different examples and cases from business experience. Lecturer Māris Millers was described as an inspirer who engaged the students in business modelling. In view of the large amount of information available, students expressed the desire for more contact hours, which, to the extent possible, were also provided through additional classes and consultations.

The general opinion of the students and graduates about studies at RTU is reflected in the fact that for the last eight years the university has been the most recommended higher education institution in Latvia. This annual survey is carried out by the Employers’ Confederation of Latvia in cooperation with the career and education website [prakse.lv](http://prakse.lv).

It must be noted, that the quality of the study program is also affected by various external factors. One of them is a high competition among higher educational programs in the field of management, which leads to price dumping in industry and challenges in quality assurance. Additionally, the promotion of different, sometimes unreasonable, views on the education in the field of management confuses potential students’ perception of the quality of the educational process.

Having conducted analyses of graduate feedback on the study process, it is possible to view the situation in the context and make changes and improvements. Usually every year graduates

positively evaluate the organization of studies and the implementation of lectures in the form of modules, which help to combine studies with professional and private life. This study course acquisition process will be maintained in the future.

As graduates recognize the special contribution that the collaboration with the industry gives, every year we search for ways how to implement this. For example, in academic year 2017/18 within the framework of study course “Design and Development of New Products” students designed prototypes of new products to meet the needs of the Children’s Clinical Hospital. As a result, four different solutions were developed to improve the comfort of little patients and their parents in the hospital. This was a new experience in collaborating with the industry and meeting its needs, as well as an interesting experience of interdisciplinary collaboration.

In order to stay in touch with the graduates, student and graduate meeting events and company tours are organized. Such company visits and networking activities are also organized to provide students and graduates with a network of contacts and support. For example, in academic year 2018/19 the company “Livonia Print” was visited, where K.G.Hoff, a member of the board of the company and a guest lecturer of the program with a long-lasting teaching experience, introduced the principles and specifics of the functioning of the company’s production processes.

Program administration together with the faculty discuss the survey results annually. The results of surveys of students, alumni and employers are used to improve the learning content and process. For example, analysis and problem solving of real companies had been integrated in the study course “Innovation Technologies”, based on survey results. Business cases of “Latvijas Past” have been analyzed by students for the last two years. A tour to the RTU Design Factory have been arranged within the “Product Design and Development” study course, according to the students’ requests. Surveys help to maintain study content and process topical.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Formally speaking, students have unlimited mobility opportunities, as the university offers the opportunity to go on exchange programs of varying lengths to different partner universities, and this collaboration has been very well developed over many years.

However, due to the specific nature of master studies and the desire of students to combine studies with the professional development and career, studies in partner universities abroad are not widespread. Family and the need to support them are often a limiting factor for mobility. In addition, some of the students have already gained significant professional experience both in working for foreign capital companies in Latvia and in conducting business activities of Latvian companies abroad. During the reporting period, one of the local students has taken the opportunity of studying in Germany within the framework of the Erasmus program.

An opportunity offered by the study program administration to undertake a short study tour to the Norwegian partners to gain insights into business administration, innovation support and world-class cutting-edge experience of international high-tech companies in Kongsberg and Oslo should also be mentioned. The program of the study tour is planned in cooperation with partners in Kongsberg, which provides access to high-tech companies such as Statcraft, DN Bank, FMC, Hydranor, Volvo Aero, Devotek, Kongsberg Group, etc. The program of study tour also

includes organizations that support the creation of new products, such as the Norwegian Design Council and Innovation Norway, as well as meetings with Investment and Development Agency of Latvia and representatives of the Embassy of Latvia in Norway.

Individual students and graduates (Aija Ambrasa, Oskars Putniņš, etc.) also participate in other international mobility events organized by the study program administration and academic staff, such as the International Cambridge Venture Camp, which has been running for five consecutive years in collaboration with Anglia Ruskin University in Cambridge, the United Kingdom.

The (inbound) mobility of foreign students has increased in the recent years. Foreign students have shown interest in completing the entire study program in Latvia. In academic year 2017/18, students from four other countries (Germany, Switzerland, Ecuador, India) started their studies together with 12 local students, in academic year 2018/19 there were 8 foreign students (Azerbaijan, Georgia, India, Sri Lanka).

Similarly, the administration and academic staff of the study program “Innovations and Entrepreneurship” are involved in hosting foreign student groups for short-term visits, introducing them to the business environment and academic activities in Latvia. For example, in the winter of 2019, a study visit was organized for a group of about 25 students from Hasselt, Belgium. The administration of the study program and the academic staff regularly meet with the delegations from various foreign higher education institutions at RTU, presenting the latest developments in innovations and entrepreneurship education in Latvia.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The main source of funding for the study program is tuition fees. Students may use study and student loans in accordance with the procedure established by the Cabinet of Ministers. Individual employers fully or partially cover tuition fees for their employees.

The tuition fee for one academic year is EUR 2700. Other sources of funding include contract work and projects.

Students and academic staff have access to the resources of RTU Scientific Library with an abundance of electronic databases (<https://www.rtu.lv/en/studies/library>). Students and academic staff also have access to the Bloomberg Database Laboratory, which is located at the faculty. A small library has been set up to provide students with the necessary study materials for mastering study courses. Individual lecturers of the study program (J. Caune, K.G. Hoff) are also authors of the study materials (Strategic Management, 2009; Business Economics, 2019).

RTU ORTUS e-learning environment is used for accessing study materials, administration of the study process and communication with students. This environment provides more opportunities for independent studies and ensures regular communication with students.

The study process takes place mainly in the facilities of the Faculty of Engineering Economics and Management at 6 [Kalnciema Street](#), if necessary, services and infrastructure of other RTU structural units are used, e.g. RTU Design Factory. For the administration of the study program and academic work, premises have been allocated at 6 Kalnciema Street.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

A total of 12-14 academic staff members are involved in the implementation of the study program, six of them have Doctoral Degree, and three of them are studying for a Doctoral Degree. All academic staff members have more than 10 years of professional experience in management.

Historically, when the study program was established in 2003, a large part of the academic staff was foreign guest lecturers, but nowadays studies are mainly provided by highly qualified Latvian lecturers.

Since the beginning of the program the study course “Managerial Cost Accounting and Project Analysis” has been conducted by the guest lecturer Kjell Gunnar Hoff from Norway in cooperation with academic staff in Latvia. In 2017/18, the implementation of this study course was taken over by Dr.oec. Raimonds Lieksnis, in cooperation with the guest lecturer, Normunds Čiževskis (MBA, Assistant Professor at Professional Programs). R.Lieksnis has been a senior financial management expert since 1998 with a significant professional and academic experience. N. Čiževskis is an entrepreneur and experienced financial expert with 16 years of experience, mentor and an instructor at various educational projects and institutions.

The study course “Technology and New Product Marketing” is implemented by Ervīns Butkevičs (MBA, Assistant Professor at Professional Programs). E. Butkevičs is a marketing professional, marketing manager with over 30 years of experience, a researcher and research project manager commissioned by companies, business consultant, developer and implementer of various marketing seminars.

Since the beginning of the study program, the study course “Innovation Technology” has been implemented by the Norwegian visiting Assistant Professor Nils-Otto Ørjasæter in cooperation with Latvian partners Uldis Cimdiņš and Inese Suija-Markova. In the reporting period U. Cimdiņš took



over the implementation of the study course, and two guest lecturers - Vita Brakovska (since 2016/17) and Elīna Miķelsone (since 2018/19) - have been engaged to strengthen the academic capacity of the study course.

U. Cimdiņš (engineer-economist, MBA, Assistant Professor at Professional Programs) is a business professional with more than 20 years of experience in senior management positions. U. Cimdiņš is an innovation expert, developer of new products, mentor, business consultant, organizer and implementer of various training courses in the field of innovations. I. Suija - Markova (MBA, guest lecturer) is a manager with more than 15 years of experience, researcher, creativity expert, academy - industry collaboration enthusiast, lecturer of study courses on innovations. Innovation expert V. Brakovska (MBA, guest lecturer) is the founder and head of the Knowledge and Innovation Society, with over 1100 national and international training programs developed and managed in the private and public sectors since 2009. E. Miķelsone (MBA, guest lecturer) is an innovation enthusiast and expert with more than 10 years of experience in leading positions, author and implementer of dozens of training programs for the private and public / municipal sectors.

Such team of experts provides an excellent capacity for the implementation of the study course "Innovation Technology", allowing flexibility as well. In the reporting period, the course has been implemented by different teams of lecturers, each of them highly appreciated by students.

At the beginning of the study program, the study course "Product Design and Development" was taught by the Norwegian guest lecturers Karsten Jakobsen and Rolf Qvenild, together with RTU Professor Elīna Gaile-Sarkane (Dr. oec., Professor). In the reporting period, the study course is taught by E. Gaile-Sarkane, who is the main implementer of this study course at Riga Technical University. Norwegian guest lecturers have conducted separate guest lectures on this study course. Under the guidance of Professor E. Gaile-Sarkane, teaching methodology for this study course is developed and the academic staff of other RTU faculties are trained.

In the reporting period the study course "Strategy and Change Management" has been taught by Jānis Caune (Dr. oec., visiting assistant professor). J. Caune has accumulated a couple of decades of management experience in private business, currently he is a CEO and the owner of several companies, a business consultant with over 10 years of consulting experience (over the last 10 years in consulting projects) and adult training in companies and more than 20 years of academic experience in higher education institutions.

At the beginning of the study program the study course "Entrepreneurship and Business Planning" was implemented by the visiting assistant professor Kjell Gunnar Hoff from Norway, and later Māris Millers (MBA, guest lecturer) was assigned to conduct the course, he is the lecturer of the study course in the reporting period. M. Millers has 10 years of experience as director of programs at the telecommunications company "Lattelecom". In 2006, M. Millers became an entrepreneur by establishing the management services company MM Studija Ltd. M. Millers has led projects for more than 100 companies in Latvia and the Baltic States.

The academic staff of the study course "Talent and Personnel Management" is Iveta Ozoliņa-Ozola (Dr. oec., Assistant Professor). I. Ozoliņa-Ozola has been teaching human resource management and economics for more than 20 years. For more than five years she has been working for a private company as an expert, researcher in the field of human resource management and development.

The study course "Management Information Systems" is taught by Leonards Budņiks (Mg. oec., lecturer). L. Budņiks has been a lecturer at the Faculty of Engineering Economics and Management since 2014. He has participated in various projects as a researcher. He has repeatedly received awards for the outstanding achievements in work with students, and in

2018, he received RTU Award as the Young teacher of the year.

The study courses “Project Management”, “Process Analysis and Management” and “Knowledge Management” are taught by Anita Straujuma (Dr.oec, Assistant Professor). A. Straujuma has developed her professional competence by working in the IT industry for more than 10 years, as well as for more than 25 years managing public organizations.

The study course “Research Methodology” is implemented by Karine Oganisjana (Dr.paed., Associate Professor). K.Oganisjana is Associate Professor and a Leading Researcher at FEEM. During her more than a 30-year long career, she has worked at various levels of lifelong learning, from primary school to university. At RTU K.Oganisjana teaches research and pedagogy to both Master and Doctoral students. She participates in various research projects as a leading researcher, regularly participates at conferences. K.Oganisjana works with educators outside the university, teaching various courses and providing mentoring to teachers.

In the reporting period, the study courses “Internship” and “Master Thesis” were conducted and coordinated by Assistant Professor Modris Ozoliņš (Engineer-Economist, M.Sc.Ing, MBA, Assistant Professor). M. Ozoliņš has gained management experience in the higher education sector since 1993 with the total experience in teaching since 1985. Methodological support and consultations during the development of Master Thesis are provided by RTU Mg.hum. Liene Ivanova (until 2017) and by Mg.oec. Tatjana Celmiņa (from 2017).

In the reporting period, the team of academic staff has been stable and the transition from foreign guest lecturer-led study courses to the academic process implemented by local academic staff has been completed, taking over the positive experience of international partners. Involvement of local academic staff enables the study course to be implemented from the perspective of Latvian entrepreneurs. The involvement of the local academic staff also provides an opportunity to reduce the cost of the study process.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The qualification of the teaching staff involved in the study program fully complies with the study program execution conditions and the requirements of regulatory enactments. Only academic staff with extensive business experience in combination with high level academic experience are involved in teaching. Academic excellence and extensive business experience are a necessary combination in the execution of Master study programs in business administration.

**Dr.oec. Raimonds Lieksnis.** Education: Master Degree in Radio Engineering (RTU), MBA (Buffalo University, New York), Doctor Degree in Economics (RTU FEEM). Professional experience: CFO at several Latvian companies (Tilde Ltd., Forta Pro Ltd., TVG Ltd., Scandagra Latvia Ltd.) for more than 15 years, Assistant Professor at Riga Business School (RBS) since October 2014. The research component in the work with students is provided by the active participation in the development of the study course in Financial Economics at Stockholm School of Economics in Riga (SSE Riga),

reviewing student course papers, as well as supervising Master Theses at RBS and supervising Bachelor Papers at SSE Riga. Professional in Finance, Supplier Relationship Manager, and in-depth Financial Risk Analysis for IT Business Acquisitions at US Private Equity Firm ESW Capital (full-time, home-based job, the fund annually purchases up to 40 companies worldwide, total value of the fund assets reaches \$ 3 billion), R.Lieksnis facilitates the acquisition and application of financial analysis and IT project financial management methods, and enables the acquisition and sharing of experience. Students learn topicalities related to managerial cost accounting and project management, modern management accounting and cost control methods. The achievement of learning outcomes is ensured by Raimonds Lieksnis' knowledge in finance as well as practical experience in finance and accounting.

Dr. oec. **Elīna Gaile-Sarkane**, a Professor of the Faculty of Engineering Economics and Management at the Riga Technical University. Prof. Gaile-Sarkane has more than 20 years of research experience, she has authored more than 140 scientific publications since 2000. Many scientific publications have been published in internationally recognized journals or conferences, they are indexed in the international databases (e.g. Thomson and Reuter, Scopus, EBSCO, etc.). Prof. Elīna Gaile-Sarkane is a member of RTU Promotion Council P-09, expert of Latvian Science Council, expert of the Czech Grant Agency, member of many international organizations. Professor Gaile-Sarkane is a member of the Joint Professors' Council of Management and Economics. , Elīna Gaile-Sarkane research interests has interdisciplinary character, including management science, innovation management, technology transfer and various aspects of entrepreneurship.

Dr.oec. **Iveta Ozolina-Ozola**, an Assistant Professor has 27 years of experience in academia. She is an expert and researcher in the field of human resource economics and management. She defended her doctoral thesis "Personnel Turnover Problems and Management Solutions in Enterprises" in 2017. Her research interests are mainly related to personnel management issues. Professor Iveta Ozolina-Ozola regularly participates in international and national projects. She delivers in-service training related to development of pedagogical and human resource management competence.

**Leonards Budņiks**, Mg.oec., FEEM Lecturer, ICF certified professional coach, Microsoft certified Excel expert, delivers study courses related to information technology and information systems management, develops data processing tools in MS Excel and Power Bi environment, continuously advances his professional knowledge attending local IT conferences and forums, participates in online courses and seminars, demonstrates deep interest in the impact of information technology on the society and economy. Research interests lie in information technology and systems management at small and medium-sized enterprises, open data concept, and research on social impact of IT development.

MBA **Inese Suija-Markova**, a visiting Lecturer and researcher holds a Master's degree in Innovation and Entrepreneurship, currently studying for a PhD in the third year to obtain a PhD in Economics. Her research work is focused on managing knowledge-intensive business services. Inese Suija-Markova she has been leading the Institute of Environmental Solutions, a private research organization since 2008. She is a Deputy Chairwoman of the Cesis Municipality 2017. Inese Suija-Markova lectures on project management, innovation techniques and creativity. She has got US and Canadian Government Fellowship. In 2003, she was awarded the Individual Fellowship under the UNESCO Bank Fellowship Program 2002 - 2003 for Research at the European Association for Adult Education in Brussels. Inese Suija-Markova is an active speaker and moderator of many international conferences and seminars

**Dr. oec. Rita Greitāne** has over 20 years of experience in higher education, research and project development. Every year Rita Greitāne upgrades her skills in project management, marketing and

communication. She uses her knowledge in the study courses and supervision of Master Theses in order to achieve the learning objectives of the study program. Rita Greitāne has participated in academic conferences with articles “Current Issues in Marketing and Strategic Management, Organizational and Teaching Methodological Challenges”, “Study Programs and Course Quality Assurance in Leadership and Management”. By participating in scientific and academic conferences, she brings together the latest findings in project management and student-centered education.

**MBA Normunds Čiževskis.** Education: Professional Master Degree in Business Administration. Professional experience: Entrepreneur and financial expert with 16 years of experience. Founder and CEO of Bizpro Ltd. (since 2003) and Co-owner and Chief Financial Officer of BeeTech Services Ltd. (since 2018). Specializes in financial planning, analysis and evaluation of investment projects implemented by companies and state / municipalities. Since 2003, he has been involved in the development of dozens of business plans for companies in various industries, and has performed the cost benefit analysis and evaluation of over 60 public sector investment projects. Since 2014, he has been conducting classes for entrepreneurs, public sector representatives and university students on project analysis, financial management and planning, and value of products.

**MBA Ervīns Butkevičs.** Education: Professional Master Degree MBA (Riga Business School, RTU). Professional experience: Marketing manager for over 30 years, researcher and member of research projects commissioned by companies. The research component in the work with students is provided by active entrepreneurship (owner and manager of e-commerce / retail and construction project management companies), participation in scientific conferences, and publication of articles. His professional experience in customer service and implementation of service standards (the latest collaborative project by BENU pharmacy network, commissioned by TAMRO), allows to gain and share experience and collaborate practically with students in developing customer-oriented strategies. Students acquire topicalities related to marketing, research and practically applicable methods. The achievement of learning outcomes is ensured by the knowledge gained in the MBA studies as well as practical experience in private companies, non-governmental organizations and state-owned companies.

**Dr.oec. Jānis Caune.** Education: Doctor Degree in Economics (UL), Master Degree in Business Administration (UL). Professional experience: Manager and owner of several companies, as well as a business consultant with more than 10 years of experience in consulting (more than 100 consulting projects) and training in companies as well as more than 20 years of academic experience. He teaches strategy management and change management. Active participation in various conferences as a speaker on topics related to change management and strategy. He has developed several software products - applications and has managed several international change and IT application development and business process integration projects. He has provided business consultations in state and municipal institutions, private, state and municipal capital companies and universities. Within the framework of projects, several municipalities have been audited for the performance of municipal functions.

J. Caune is a member of the State Examination Commission of the MBA study program “Innovations and Entrepreneurship”, he supervises and reviews Master Theses, and conducts lectures for Doctoral students in both Latvian and English language.

**Dr.oec., Assistant Professor Anita Straujuma.** Education: Master Degree in Computer Science, Master of Business Administration (MBA), Doctor Degree in Economics. Professional experience: work in the IT industry for more than 10 years, participation in establishing and managing a leading medical software company in Latvia; more than 25 years of practical experience in managing non-governmental organizations; participation in international research projects and conferences;

experience in organizing international conferences; participation in the creation and development of a scientific journal, academic experience in the field of economics.

**Māris Millers Mg. sc.** (University of Latvia, Faculty of Physics and Mathematics, 1992), MBA (RTU International Master Study Program “Innovations and Entrepreneurship”, 2005), PhD student at RTU FEEM (Doctoral studies in Management Science and Economics, 2015). Studied Telecommunications Management in 1-year study program at Cable & Wireless College (Coventry, the UK, 1995). Professional experience: For 10 years, he has worked with an international management team at the largest Latvian telecommunications company Lattelecom as Director of Change Programs, Director of Business Development, and Director of Processes. Since 2006 - founder, management consultant and business coach of the management company MM Studija Ltd. As a management consultant and management team moderator, he has worked with over 100 Latvian and Baltic corporate management teams on corporate strategy development, business planning, process and work organization improvement projects, as well as new product development and start-up projects.

As an investor and business development manager, he has established Artende Ltd., a confectionery company (2008), smartphone application development company, DriveWiz Ltd. (2012) and an innovative office whiteboard solution, Flipchart.co (2017). He created and continues to develop the Organization Development System “9 Elements”.

His professional experience and understanding of the business environment are used in academic work, in preparing and conducting study course “Entrepreneurship and Business Planning” at RTU Master study program “Innovations and Entrepreneurship” and he is also a guest lecturer at RTU Bachelor and Master study programs conducting study courses on Strategy, Business Modelling and Process Management. The study materials, assignments and tests are prepared using current situations of Latvian and European companies and managers. He is also a supervisor and reviewer of Master Theses and a member of the State Examination Commission in RTU FEEM study program.

**MBA Vita Brakovska.** Education: MBA (RTU International Master Study Program “Innovations and Entrepreneurship”). Professional experience: Founder and CEO of the Knowledge and Innovation Society, with more than 1100 developed and managed entrepreneurial training courses since 2009 in both the private and public sectors. V. Brakovska has more than 10 years of experience in the field of state and municipal, and international experience in promoting creative thinking in the Baltic States and CIS, more than 10 years of academic experience in several Latvian universities, more than 20 years of practical experience working with human resource development in NGOs, regular cooperation with regional business incubators, consulting authors of ideas in regions of Latvia. In 2015 she received JCI Latvia International Award “TOYP” (Ten Outstanding Young Persons) in the nomination “Business, Economy, Entrepreneurship”. The regular collaboration with partners from different disciplines, including companies, allows to follow the current information and integrate it into the learning process. The participation in international projects outside Latvia provides regular contact with experts and competences, which are used to improve the quality of the educational process.

**Modris Ozoliņš**, engineer-economist, M.sc.ing, MBA, Assistant Professor, RTU PhD student. Professional experience: management experience in higher education since 1993, total teaching experience since 1985. Since 1997, M.Ozoliņš has been managing only study programs without state funding. The implementation of the study programs and the involvement of students fully relies on successful marketing. Over 20 years of experience in establishing and managing international public organizations. M.Ozoliņš has participated in many international research and education projects as both a manager and researcher. Author and co-author of dozens of scientific publications. M.Ozoliņš has been a member of the organizing committees of many Latvian and

international conferences and forums, participated in events in Europe, America, Asia, promoting RTU and management education in Latvia. M.Ozoliņš is an expert and a member of the jury at RTU, national and international business competitions (IDAL Idea Cup, Challenge Future, etc.). As an expert, he participated in the accreditation of international business schools within the framework of international CEEMAN IQA accreditation. M.Ozoliņš has received dozens of faculty, university and international acknowledgments for his work.

**MBA, PhD candidate. Elīna Miķelsone** (MBA, BA School of Business and Finance). All fields of interests, both academic and professional, are related to innovations and new product development. E. Miķelsone has 10 years of experience in leading positions. Since autumn 2016, she has been Chairperson of the Board of the Institute of Ideas and Innovation. She also works as a guest lecturer at the Zemgale Region Human Resource and Competences Development Center, where she has developed and taught author programs for six innovation courses. Project Manager in Business development projects “Radām Novadam” (EEPA Award Winner) and “Nacionālo dārgumu jaunatklāšana” (LV100). Since 2015, she has worked as a self-employed consultant for ideas and innovations. In total, she has advised over 200 existing and emerging entrepreneurs. The total work experience gained helps to design and lead study courses on innovations and new product development. E. Miķelsone develops various innovative projects such as #ContactCatching, Encyclopedia of Ideas, Organic Candy, DogWiser, Mobile Centre of Rapid Prototyping. It provides students with the insight into a wide range of in-depth case studies.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

All academic staff members of the study program “Innovations and Entrepreneurship” are actively

engaged in scientific research, creativity and creativity support activities. The most active in the field of scientific research are Dr. Elīna Gaile - Sarkane, Dr. Anita Straujuma, Dr. Karine Oganisjana, Dr. Iveta Ozoliņa - Ozola, MBA Elīna Miķelsone, MBA Modris Ozoliņš, MBA Māris Millers. The academic staff is involved in international scientific research projects, publishes scientific papers in conferences, seminars, workshops. Some of RTU and partner institution research projects where academic staff of the study program are involved - INTERREG IV A Program Project "USE SCIENCE" - Scientific Equipment and Services Database Development Project (2012-2014); Norwegian Financial Instrument (NFI) Project "EU Policies Impact on Transformations in Higher Education and Research System in Norway and Latvia", Contract No NFI / R / 2014/006 (2016-2017); Erasmus + project "European Entrepreneurship Training Community", ID No. 2018-1-LV01-KA203-046974 (2018-2021).

The academic staff of the study program actively participate in creativity and creativity support activities in the field of entrepreneurship. The most active members are Dr. Jānis Caune, MBA Vita Brakovska, MBA Elīna Miķelsone, MBA Normunds Čiževskis, MBA Modris Ozoliņš, MBA Uldis Cimdiņš, MBA Māris Millers and others.

The academic staff and graduates of the program are partners in the implementation of the annual National Ideas Cup for Innovative Business Ideas. From the beginning of the competition, M. Ozoliņš and U. Cimdiņš act as mentors and jury members. J. Caune, M. Millers, M. Ozoliņš have worked as experts and cooperation partners in the national business promotion competition "Trade Secret".

Since 2015, the program administration and academic staff have been participating in the Cambridge Venture Camp, International Business Development Program, implemented in partnership with Anglia Ruskin University in Cambridge, United Kingdom. (<https://www.connectlatvia.lv/cvc-1/>)

N. Čiževskis has been a financial mentor for start-ups in various sectors since 2012; currently he supports companies in the "Export Springboard" program organized by the Mentors Club. Creator and head of the mentoring program at the Mārupe Entrepreneurs Association. One of the creators of the "(ie)dvesma" grant program and member of the jury.

M. Millers 2017-2018 as a leader of the Business Planning Work Package, participated in the European Union Horizon 2020 research and innovation program Teaming Phase I (No 763721) - Establishment of BBCE – Baltic Biomaterials Centre of Excellence, where RTU Rūdolfs Cimdiņš Riga Biomaterials Innovation and Development Center, Latvian Institute of Organic Synthesis, Riga Stradins University from Latvia, as well as AO Research Institute Davos (Switzerland) and Friedrich-Alexander Erlangen-Nuremberg University Biomaterials Center (Germany) are partners. The business plan developed within the project has been approved and envisages 15 million EUR co-financing from the European Structural Funds for the establishment of BBCE over the next 7 years.

M. Millers participates as a guest lecturer, expert, member of the jury in various business promotion, youth and entrepreneurial and competence development projects, including the Ideas Cup, Riga Young Entrepreneurs Training in Cambridge, CREAzone, Demola, X -industry Hackathon, etc.

In 2016 and 2017, within the framework of Erasmus + mobility program, M. Millers conducted a 4-day workshop on Situational Business Analysis and Planning at INHOLLAND University of Applied Sciences (Alkmaar, The Netherlands) and in 2017 conducted guest lectures "Planning for Startups" at Pôle Universitaire Léonard de Vinci (Paris, France).

Participation of V. Brakovska in the public sector have enabled her to become a fully-fledged

partner at regional and national level among policy makers and practitioners of various sectors. V.Brakovska's competencies have been highly appreciated by such institutions as the State Audit Office, Cross-Sectoral Coordination Center, the Ministry of Environmental Protection and Regional Development, the Ministry of Education and Science (participation in the working group "Education for All" lead by the minister), the Ministry of the Interior, the State Chancellery, the Ministry of Culture, the Ministry of Health, Treasury, the Central Finance and Contracting Agency, the State Revenue Service, Latvian Prison Administration, the State Probation Service, Center for Disease Prevention and Control, Latvian Municipal Training Centre, administrations of planning regions, British Council, UNESCO, US Embassy, the Social Entrepreneurship Association of Latvia, Civic Alliance - Latvia, Foundation DOTS, regional business incubators as well as representatives of the private sector - Latvian IT cluster, TET, TV Play Home, Narvesen Baltija, Aloja Stakelsen, ELKO Group, If Latvia, TNS Latvia, G4S, Ir magazine, Latvijas Zālais punkts, DNB, Karlo Motors, Insurance JSC Balta, Nordea, SEB, etc. V. Brakovska has received the recognition of the European Commission for the implementation of the national competition "Idea Cup" (IDAL). V. Brakovska is one of the well known business experts in events and projects organized by the Social Entrepreneurship Association of Latvia.

Elīna Miķelsone initiates and conducts business promotion competitions, including "Radām Novadam" (EEPA Award Winner) and "Nacionālo dārgumu jaunatklāšana" (LV100). Within the framework of these projects, E. Miķelsone advised about 80 teams of young entrepreneurs on innovation and entrepreneurship issues, organized workshops. More than 10 different seminars have been organized in the project "Radām Novadam". Since 2015, E. Miķelsone works as idea and innovation consultant. In total, she has advised over 200 existing and emerging entrepreneurs.

As can be seen, practically all the faculty members of the study program participates in various scientific research, consulting, mentoring and creative activities according to their interests and competencies. The results of research and creativity are integrated into the study process in the following way:

- Discoveries findings of research and creative activities are integrated into the study course materials;
- Positive research and creativity experience is integrated into the development of study methodology;
- Industry cases studied in the research and innovation process are used to support and illustrate academic process;
- Business cases discovered in the research are later used to develop and strengthen students' skills;
- During the research and creative activities, attractive guest lecturers are identified, to be later invited to share their expertise in study courses.

In line with RTU policy guidelines and global trends, special attention is given to valorization activities. Academic staff, students and graduates in the study program "Innovations and Entrepreneurship" are working together to commercialize scientific and practical developments and to carry out projects.

Both in the day-to-day study process and in the elaboration of the Master Thesis, the emphasis is placed on innovations that meet real demands from different industries, as well as interdisciplinary collaboration. A successful example that can be mentioned is, in academic year 2017/18 within the framework of study course "Design and Development of New Products" the students designed prototypes of new products in the framework of their course "Design and Development of New Products" to meet the needs of the Children's Clinical Hospital. In 2018, a painting holder for the



transportation of canvases that are not completely dry was patented (Republic of Latvia patent No 15297). The application for this patent is based on the joint work of the program graduate Jānis Blunavs and the academic staff of the study program.

Mai commercially oriented cooperation projects from 2013 see in Table.

Source of funding	Name of the project	Execution time	Allocated funds (euro)
Ministry of Education	Applied research project "Exploration of Alternative Models to Foster Cooperation Between Industry and Study Process" (Project leader - Professor Elina Gaile-Sarkane)	2017	2800
Private and Rural Support Service of Latvia	Start-up <i>Milzu!</i> <a href="https://www.milzu.lv/en/">https://www.milzu.lv/en/</a> established by Enno Ence, the graduate of the FEEM, started production in 2014. The business model was approbated during studies at the MBA program "Innovation and Entrepreneurship". (Project leader -Enno Ence)	2014 - present	200000
European Regional Development Fund within the framework of the project "Latvian Food Industry Competence Centre"	The research project <i>"“Milzu!” Research on new cereal recipes and “Milzu!” research and development of a children's toy ecosystem for cereal flakes in order to increase the added value of food products"</i> No. 1.2.1.1/16/A/004 (Project leader -Enno Ence)	2016-2018	200000
Private and Latvian Investment and Development Agency	Company <i>"Trakais Rotors"</i> <a href="http://www.crazyroller.eu">www.crazyroller.eu</a> , established in 2008 by Roberts Brivlauks, the graduate of the FEEM, got financial support for exploring export market. The business idea for <i>"Trakais Rotors"</i> was developed, and prototype was created during studies at the MBA program "Innovation and Entrepreneurship".	2016, 2017, 2018	6000
Altum, Imprimature, EU Structural Funds, EEZ.	Start-ups <i>"PlayGineering"</i> and <i>"PlayGineering Systems"</i> , established in 2011 by Ričards Fomrats, the graduate of the FEEM. The business idea was developed during studies at the MBA program "Innovation and Entrepreneurship". Finances for business were attracted from Altum, Imprimature, EU Structural Funds, EEZ in 2016-2018.	2015, 2016, 2017	600000

Private and Latvian Investment and Development Agency	Start-up <i>infy.me</i> was established by Oskars Putniņš, the graduate of the FEEM, with support of the grant awarded by business idea competition “Idea Cup”.	Dec 2013	1000
Private	Start-up <i>Water2Snow</i> <a href="https://www.water2snow.lv/">https://www.water2snow.lv/</a> was co-founded by Aija Ambrasa the graduate of the FEEM. The business idea for <i>Water2Snow</i> was developed during studies at the MBA program “Innovation and Entrepreneurship”.	2016 - present	
Riga Technical University (internal)	Vita Brakovska, the graduate of the FEEM organize yearly <i>Simulation Fairs</i> (Simulācijas tirgus) where students present their products to the business experts (yearly event on going since 2013). More than 60 teams presented their ideas to more than 60 experts that represented different sectors and have benefited by impulses received during the participation in the Simulation Fair.	2013 - present	1200
Private	Start-up “ <i>Wood Design Workshop</i> ” was established by Vita Brakovska, the graduate of the FEEM.	2018 - present	
Private + Riga City Council financing programme “Atsperiens”	Maris Millers, the graduate of the FEEM, established start-up “ <i>DriveWith</i> ”. Seed financing was provided by Riga City Council financing programme “Atsperiens”.	2013 - present	7700

Riga Technical University (internal)	Development of prototypes according to needs of the Children's Clinical University Hospital in Riga. The following prototypes have been developed by students of the MBA program "Innovation and Entrepreneurship" under supervision of professor Elina Gaile- Sarkane: 1) Change of design of medical equipment in order to make it kid friendly. 2) Development of a toy to reduce stress of kids in the hospital " <i>Hug me and I hug you</i> ", 3) Design of interactive wall mounted game for different patients (kids). 4) Development of www application <i>dr.Buddy</i> , to provide real time information to kids' parents and medical personnel in the ambulance.	October 2018 – April 2019	4480
Postal Office of Latvia	Development of prototypes according to needs of the Postal Office of Latvia. Solutions for 6 problems had been developed.	January 2019.	

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The academic staff of the study program cooperate regularly through various formal and informal events. Once a year, a methodological round table seminar is held the academic staff members to exchange ideas, share best practices, and discuss challenges. If a study course is taught by a team, the academic staff coordinate its implementation plan before commencing the course. Every year the content of the study courses is updated and adapted to the latest developments in the field, the possibilities of involving guest lecturers are evaluated and the study process is planned accordingly.

Teaching methods are discussed and improved both through mutual discussions, joint participation in seminars, conferences and joint projects. The academic staff regularly participates in the faculty's annual academic and scientific conferences. For example, in 2018, the theme of plenary session of the annual Autumn Scientific Conference was "How to Evaluate and Measure Innovations?", five academic staff members of the study program took part in this session. In 2019, the theme of the Spring Academic Conference was "Transversal competence based education at schools and its impact on higher education", which led to intense discussions about future challenges in the study process. Highlights of the study process were discussed at the plenary session of the Autumn Scientific Conference in 2019, which focused on student-centered education

and the challenges of the 21st century (Student Centered Business Education: Global Challenges in the 21st Century).

Topicalities of the implementation of the study process are also regularly discussed with Norwegian partners from USN University, who are implementing a similar study program. A Norwegian partner certificate is issued to each graduate; it approves the collaborative work in the design and implementation of the study program.

EEA and Norwegian Financial Instrument Program “Research and Scholarships” Project “EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia” No NFI / R / 2014/006) explores the interaction between higher education environment and policy. Within this project the University of Latvia, Stockholm School of Economics in Riga, RTU and the Nordic Institute for Studies in Innovation, Research and Education NIFU collaborated.

The latest collaborative project where the faculty members and academic staff of the study program are involved, is the Erasmus + project “European Entrepreneurship Training Community” (2018-1-LV01-KA203-046974). Within the framework of the project, an improved methodology for training and promoting entrepreneurship is being elaborated in cooperation with Anglia Ruskin University in the United Kingdom, South-Eastern Finland University of Applied Sciences, Finland and Erasmus University Rotterdam in the Netherlands.

The study course is delivered by a single instructor or a team of instructors. Overall, the faculty / student ratio is an average 1 to 3.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5_Statistical data_RIGI0.pdf	5. Pielikums_Statistika par studējošajiem_RIGI0.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6_Assessment of the Compliance with the Cabinet Regulations No 512.pdf	6. Pielikums_Atbilstība valsts standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7_Compliance of the Study Program RIGI0.pdf	7. Pielikums_Atbilstība profesijas standartam_RIGI0.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Mapping_RIGI0_ENG.xlsx	Kartējums_RIGI0_LV.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Study Plan_RIGI0.pdf	Studiju plāns_RIGI0.pdf
Descriptions of the study courses/ modules	Appendix 10_Study courses.7z	10. Pielikums_Studiju kursu apraksti.7z
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma paraugs_RIGI0_ENG.pdf	Diploma paraugs_RIGI0_LV.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement.zip	Vienošanās ar LU BA.zip
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Līguma paraugs_ENG.pdf	Līguma paraugs_LV.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Organization and Management of International Economic Relations

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Organization and Management of International Economic Relations</i>
Education classification code	<i>42345</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Ingūna</i>
Surname of the study programme director	<i>Jurgelāne-Kaldava</i>
E-mail of the study programme director	<i>Inguna.Jurgelane-Kaldava@rtu.lv</i>
Title of the study programme director	<i>Asociētā profesore, Dr.oec.</i>
Phone of the study programme director	<i>67089553</i>
Goal of the study programme	<i>To train qualified, internationally competitive specialists in the field of organization and management of international economic relations conforming to the approved occupational standard requirements (Head of External Relations Unit), as well as to provide students with theoretical and practical knowledge that ensures the basis and professional competence in the fields of international economic relations, business management and economics.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li>- <i>To provide competitive education in the field of organization and management of international economic relations in line with the Bachelor level, the occupational standard and the international requirements;</i></li> <li>- <i>To provide students with comprehensive knowledge, to develop analytical thinking, to develop skills and competences, as well as to promote practical work skills, preparing students for the labour market;</i></li> <li>- <i>To ensure the development and improvement of the content of the study program, the study process, as well as scientific research work in accordance with international internship and the latest software, scientific and technological discoveries and innovative methods;</i></li> <li>- <i>To stimulate students' interest in further professional development and improvement of their academic knowledge, to continue their studies at the Master level, to improve their qualification, as well as to develop interest in research work and to promote the use of these skills;</i></li> <li>- <i>To stimulate students' interest in the processes taking place in the community, as well as to promote the development of ethical and socially responsible personalities.</i></li> </ul>

Results of the study programme	<ul style="list-style-type: none"> <li>- Ability to analyze and evaluate the international political, economic, social and legal environment;</li> <li>- Ability to organize and manage international relations in organizations, including state and municipal institutions;</li> <li>- Ability to organize and manage international relations in international organizations;</li> <li>- Ability to provide intercultural communication in the international environment;</li> <li>- Ability to manage the organization's international communications unit;</li> <li>- Ability to manage and coordinate international business plans and international projects;</li> <li>- Ability to identify and evaluate opportunities for the development of organizations in an international environment;</li> <li>- Ability to cooperate with national and international participants;</li> <li>- Ability to represent organization's interests in the international environment.</li> </ul>
Final examination upon the completion of the study programme	Bachelor Thesis

## Study programme forms

### Full time studies - 4 years - latvian

Study type and form	Full time studies
Duration in full years	4
Duration in month	0
Language	latvian
Amount (CP)	160
Admission requirements (in English)	General or vocational secondary education or 1st level professional higher education in business and management
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Professional Bachelor Degree in Management of International Economic Relations
Qualification to be obtained (in english)	International Relations Manager

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 5 years - latvian

Study type and form	Part time extramural studies
Duration in full years	5
Duration in month	0
Language	latvian
Amount (CP)	160
Admission requirements (in English)	General or vocational secondary education or 1st level professional higher education in business and management

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor Degree in Management of International Economic Relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Part time extramural studies - 5 years - english**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>5</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General or vocational secondary education or 1st level professional higher education in business and management. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor Degree in Management of International Economic Relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Full time studies - 4 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General or vocational secondary education or 1st level professional higher education in business and management. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor Degree in Management of International Economic Relations</i>
Qualification to be obtained (in english)	<i>Head of External Relations</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050



### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

The study program is implemented in full-time intramural form in Latvian and English.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Analyzing changes in the number of students from academic year 2013/2014 to the academic year 2018/2019, it can be concluded that the total number of students decreased from 164 to 80 students or by 51.22% (Appendix 5). This can be explained by demographics and the decrease in the total number of students in the country, as well as by the fact that the tuition fee was increased, but the number of state budget funded seats was not increased during the last 6 years.

Since academic year 2015/2016, the program has been implemented only as a full-time study program.

Since academic year 2016/2017 the program has been also implemented in English. The number of students studying in the English language is increasing every year - from 5 students in 2016/2017 to 28 students in academic year 2019/2020. By December 2019, a total of 47 students have been enrolled in the program implemented in English (28 of whom have been enrolled in the first year). The increasing number of students shows that the program is internationally recognized and appreciated.

State budget funded seats are available for the study program implemented in the Latvian language. Analyzing number of students by the type of funding, there are only 19 state budget funded seats in the study program, which is 23.75% of the total number of students. This is both a positive factor, as it points to the demand and high quality of the study program in the labor market, and a negative factor - many students who would like to study at the program cannot afford it and prefer to study at other programs with more state budget funded seats. Every year, in the process of

enrolling new students, there is a great competition for state budget funded seats – about 25 students per state budget funded seat (*Appendix 1.2.1. Enrollment statistics in Bachelor's program*). This reflects the high appreciation of the program by prospective students.

The dropout rate of the students is the highest in the first and second years, mostly due to poor study results. A total of 59 students, or 9.00%, have been expelled for failure over a 6-year period (see Appendix 5). Most students were unsuccessful in exact study courses, which showed that the knowledge gained in secondary school in this field was not sufficient.

In the professional Bachelor study program “Organization and Management of International Economic Relations”, English is the language of instruction of about 30 % of the study courses implemented for the students studying in the Latvian language (courses as *International Trade, Current Trends in International Business, International Business Planning, International Project Management, Intercultural Communication*). This is due to the fact, that graduates will have to work in the international environment and have a high level of English proficiency in their profession.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The main tasks of the study program are as follows: to educate the students, ensuring acquisition of the professional bachelor degree in Management of International Economic Relations and qualification of “International Relations Manager”, as well as to promote their competitiveness in the changing socio-economic conditions and international labor market, as well as to ensure achievement of study results (knowledge, skills and competences) according to level 6 of the European Qualifications Framework complying with the National Education Standard.

The specific aims and tasks of the program are defined in accordance with the strategic aim and main tasks in cooperation with specialists and employers in the field of international economic relations.

The strategic goal of the study program is to train qualified, internationally competitive specialists in the field of international economic relations. The study program “Organization and Management of International Economic Relations” educates and trains specialists for the Latvian national economy. At the same time the program corresponds to the aims and tasks set by RTU. Specific professional qualification requirements have been developed for the profession of international communications manager. The content of the program, which is based on the

responsibilities and tasks set out therein, has been developed.

The study program “Organization and Management of International Economic Relations” is designed to educate and train senior specialists and heads of organizational units in the field of international economic relations according to the requirements of the global labor market. The main emphasis in the study process is placed on the development of professional and practical competences based on scientific achievements, theoretical knowledge and field specifics. Considering the specifics of the field, some of the courses are conducted in English in order to improve the use of professional terminology in the context of cross-border business and to facilitate co-operation with structures, institutions, organizations and companies of other countries. Academic staff of the University as well as representatives of the industry and highly qualified practitioners, whose practical experience has been gained and developed at the companies and institutions of the field, are involved in the implementation of the study process.

Upon completion of the study program, the student acquires a Professional Bachelor Degree in Management of International Economic Relations and a 5th level qualification of International Relations Manager.

Students with general secondary education or 4-year vocational secondary education, or first-level higher professional education in business and management are admitted to the professional Bachelor level study program. Applicants are admitted to the full-time and part-time undergraduate programs based on the results of centralized exams (CE) in mathematics, physics, Latvian and foreign languages and annual grades in certain subjects in the secondary education document.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master’s and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The volume of the professional Bachelor program is 160 CP, which consists of study courses (122 CP), internship (26 CP) and state examination (12 CP) that includes development and presentation of the Bachelor Thesis. The choice of Bachelor program study courses, the volume and content of study courses, as well as the content of the

internship have been developed according to the professional degree and professional qualification to be acquired in accordance with the requirements of professional qualification of *International Relations Manager*.

Almost every year changes are made in the content of the study courses and in the content of the study program, in accordance with the trends of the field, as well as the recommendations of the students for the improvement of the program content. In the academic year 2013/2014 and 2014/2015 no significant changes were made to the study program. The content of the study courses was reviewed and analyzed, the existing study courses were supplemented and updated, and the latest teaching methods were integrated. The programs of the individual study courses were revised, integrating the latest teaching methods, and supplemented with the most topical topics. As needed, new lecturers were recruited for the implementation of different study courses.

In the academic year 2015/2016, Part A (compulsory courses) of the study program included the courses *Business Administration* in the amount of 2 CP and *International Trade* 3 CP. The study course *Analysis of Economic Processes* in the amount of 3CP was excluded from Part A of the study program (compulsory courses of the program). In turn, from the Part A (compulsory courses of the program) the course *Common Commercial Policy of the European Union* in the amount of 2 CP has been transferred to Part B1 (Specialization courses) of the program.

During the academic year 2016/2017, the content of the study program was changed. The amount of the compulsory (A) part of the program was changed from 82 CP to 76 CP; the volume of the compulsory elective part (B) from 34 CP to 40 CP, respectively, from 26 CP to 32 CP in the professional specialization (B.1) and in the *Humanities, Social courses* (B.2) and *Languages* (B.6. ) changes was not made. From the Part A of the Study Program (compulsory courses of the study program) the courses of *Communication Basics* 2 CP and *Mathematics for Economists* 4 CP were excluded. Part A of the study program also replaced study courses *Introduction into Specialty* 1 CP with *Introduction to Study Field* 1 CP, *Business Communication* 2 CP with *Business Communication* 3 CP, *Microeconomics* 3 CP and *Macroeconomics* 3 CP with *Economics* 4 CP, *Mathematics* 4 CP with *Mathematics* 5 CP, *Business Economics* 2 CP with *International Business Planning* 2 CP, *Computer Science (Basic Course)* 3 CP with *Business Data Analysis Technologies* 3 CP, *Computer Economics* 2 CP with *Business Data Analysis Technology* 2 CP, *Computer Science for Economists (study project)* 2 CP with *International Business Planning (study project)* 2 CP.

Also in the academic year 2017/2018, significant changes were made to the study program. From Part A of the Study Program (compulsory part of the program) the study courses: *Fundamentals of Business Logistics* in the amount of 2 CP and *Tax system abroad* in the amount of 2 CP were transferred to Study Program A.2 part, but *International Monetary and Financial System* 4 CP and *Business System Functional Model* 2 CP, *European Union Agriculture, Environmental and Regional Policy (Study Project)* 2 CP and *Organization and Functions of the European Union* were

Transferred to the Study Program Part A3. In A.2 part of study program was included study courses *Fundamentals of Business Logistics* 2 CP and *Research Work* 4 CP, but in part A.3 - *International Project Management* 4 CP, *The European Union Governance and Policy* 3 CP, *International Project Management (Study Project)* 2 CP and *Record Keeping in International Companies* 2 CP. The professional specialization courses of the study program B part included study courses *Intercultural Communication* in the amount of 2 CP, *International Business Etiquette and Communication* in the amount of 3 CP and *Model of Functioning of the Economic System (business game)* in the amount of 2 CP. Study course *Business Communication* in the amount of 3CP was excluded from the compulsory part (A), but in the professional specialization section of the Study Program (B) was excluded study courses *Export Credit Policy* 2 CP, *Tax Policy and Systems* 3 CP, *European Union Adoption and application* of 3 CP, *Management decisions* of 2 CP, *Export and its organization* of 2 CP and *Business etiquette* of 2 CP.

In the academic year 2018/2019, the volume of the study program part A "Compulsory study courses" was increased from 76 CP to 92 CP, respectively - the volume of the part A.1 "General education study courses" was reduced from 13 CP to 12 CP, the volume of the part A.2 "Field specific theoretical basic study courses and IT study" was increased from 30 CP to 36 CP, but the volume of the part A.3 "Field specific professional study courses" was increased from 33 CP to 44 CP. From compulsory (A.2) part the following courses were excluded from the section "Field specific theoretical basic study courses and IT study": *Marketing* of 3 CP, *Taxes and Duties* of 3 CP, *International Business Planning* at 2 CP, *Legal Basis of Business* at 2 CP, *International Trade* 3 CP, *Research work* 4 CP, *Work environment and ergonomics* 2 CP, but study included courses - *Mathematics* 5 CP, *Statistics* 3 CP, *Quantitative Methods in Economics* 3 CP, *International Economics* 4 CP, *Taxes and Fees* 2 CP, *International Business* 2CP, *Intellectual Property and its Protection* 2 CP and 2 CP in *International Marketing*, 2 CP in *Legal Basics of Entrepreneurship*.

From compulsory A.3 part *Field specific professional study courses* was excluded study courses *International Economics* 4CP, *International Marketing* 2CP, *Business Management* 2CP, *International Economic Relations* 2CP, *Fundamentals of Business Logistics* 2 CP, *The European Union Governance and Policy* in the amount of 3 CP, *Record-Keeping in International Companies* in the amount of 2 CP, but included study courses *International Economic Relations and Globalization* in the amount of 4 CP, *International trade* in the amount of 2 CP, *International Business Etiquette and Communication* 3 CP, *Intercultural Communication* 2 CP, *International Protocol* 2 CP, *Personnel Management (Basic Course)* 2 CP, *International Competition* 2 CP, *Customs Legislation in Latvia and Abroad* - 2 CP, *Model of Functioning of the Economic System (business game)* - 2 CP and *Basics of Quality Management* - 3 CP.

The following courses were excluded from Part B1 "Field-specific study course" in the specialization "International economic relations administration in the institutions of the European Union": *International Competition* in the amount of 2 CP, *Customs*

*Legislation in Latvia and Abroad* in the amount of 2 CP, *Business logistics* 2 ECTS, *Economic and Transport Geography* 2 CP, *Intellectual property and its Protection* 2 CP, *Quality System Management* 2 CP, *International Transportation Management* 2 CP, *Personnel Management (Basic Course)* 2 CP, *International Protocol* 2 CP, *Model of Functioning of the Economic System (business game)*, 2 CP, *Intercultural Communication* 2 CP, *International Business Etiquette and Communication* 3 CP, but courses *The European Union Governance and Policy* 3 CP, *International Labor Law* 2 CP, *Small Business Management* 2 CP, *Supply Chain Management and Freight Forwarding* 2 CP and *Strategic Management* 2 CP was included.

The following study courses *International Business* 2 CP, *Business Logistics* 2 CP, *Organization and Planning of Small Business Entrepreneurship* 2 CP, *Taxation in the Company* 3 CP were excluded from Part B1 “Professional specialization study courses” in the specialization “International Business Relationship Management of the Company”, *Economic and Transport Geography* 2 CP, *Intellectual property and its protection* 2 CP, *Management of Quality Systems* 2 CP, *Personnel Management (Basic Course)* 2 CP, *Model of Functioning of the Economic System (business game)* 2 CP, *Intercultural Communication* 2 CP, *International Business Etiquette and Communication* 3 CP, but included study courses *Small Business Management* 2 CP, *International Labor Law* 2 CP, *European Union Customs Policy* 2 CP, *Supply Chain Management and Freight Forwarding* 2 CP, *Strategic Management* 2 CP.

In its turn, the study courses *Special German* f2 CP and *Special French* 2 CP were excluded from the Study Program Part B6 “Languages”, instead, the study courses *German* 2 CP and *French* 2 CP was included.

In order to consolidate theoretical knowledge and gain experience in the field, the internship of 26 CP is implemented. The higher education institution concludes an agreement with the student and employer. When defining the aims and tasks of the internship, the content of the internship includes the student’s acquaintance with the management structure and operating principles of the company where the students undertakes internship, the specifics of the field, etc. Representatives of the organizations with whom the agreement on the implementation of the internship has been concluded take part in setting the aims and tasks of the internship and evaluation. The student achieves the aim of the internship based on the acquired knowledge, skills and competence.

The structure of the program and other formal conditions comply with the requirements set in the national legislation and decisions of RTU Senate. As a result of professional studies, the student acquires the knowledge and necessary professional competence, which correspond to the requirements of the professional Bachelor degree and allow starting a professional activity corresponding to the specialty. The structure of the study program is shown in Table 10.1 (see appendix 10).

During the time of studies, the student develops and presents at least three study

papers (study projects). In order to bring the content of the program as close as possible to the needs of the labor market, visiting lecturers are involved in the study program, i.e., experts, who actively participate in academic, methodological and scientific work. The academic staff of the study program, in cooperation with visiting lecturers, develop the content of the study courses and choose the most appropriate teaching methods. Visiting lecturers participate in the development of various regulations (e.g., regulations on the organization, implementation and defense of internship, study project, Bachelor Theses, etc.). Separate study tours and study visits are also organized in cooperation with visiting lecturers and partner companies. Visiting lecturers are also involved in the supervision and consulting of Bachelor Theses.

Employers' representatives regularly take part in the work of the Graduation Paper Defense Committee to evaluate students' knowledge in the study program.

Term papers and graduation papers are also developed in cooperation with industry representatives. For example, the study project "Promotion of Latvian Food Supplements to the Canadian Market" has been developed in cooperation with the Latvian Investment and Development Agency. The best Bachelor Theses of the students of the program, in their turn, are developed in cooperation with the industry organizations where the student undertook practice or where he / she worked. The best Theses have been developed about topics as:

- "Attracting Foreign Direct Investment in the Baltic States" (2016);
- "Model for International Supplier Evaluation in Radio Electronics Trading Companies" (2017);
- "Benefits of Shared Service Centers for Information and Communication Technology Companies in Latvia" (2017);
- "Export Opportunities of Latvian Wood Industry Products to Benelux Countries" (2017);
- "Criteria for Latvia's Export Destinations" (2017);
- "Latvian Perfume and Cosmetic Companies' Strategy for Entering the Brazilian Market" (2018);
- "Criteria for Establishing Shared Service Centers" (2018);
- "Attracting Foreign Workers to Shared Service Centers" (2018);
- "Possibilities for the Development of United Service Centers in the Baltics" (2018);
- "Involving New Businesses in Corporate Innovation to Promote International Competitiveness" (2019).

RTU has established the Alumni Gold Fund, which includes the most outstanding and capable graduates of RTU study programs, judging by their academic achievements and social activities.

- In the academic year 2013/2014 from the professional Bachelor's study program, graduates Baiba Soika and Danija Vēmane were included in the RTU

Gold Fund ;

- In the academic year 2014/2015 from the professional Bachelor's study program, graduate Elīna Plāne was included in the RTU Gold Fund;
- In the academic year 2015/2016 from the professional Bachelor's study program, graduates Oļesja Aļeksova and Ģirts Auders were included in the RTU Gold Fund;
- In the academic year 2016/2017 from the professional Bachelor's study program, graduate Megija Krieviņa was included in the RTU Gold Fund;
- In the academic year 2016/2017 from the professional Bachelor's study program, graduate Elīna Aļeņikova was included in the RTU Gold Fund;

In the academic year 2018/2019 from the professional Bachelor's study program, graduates Baiba Ramlava, Marta Madara Dundure and Paula Rossinska were included in the RTU Gold Fund.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program "Organization and Management of International Economic Relations" has defined 9 achievable learning outcomes. The aims set in the study course descriptions are closely linked to the learning outcomes of the study program. The course content is subordinated to the achievement of learning outcomes (see Appendix 8). Every year the content of the study course is audited, which helps control and update the course content, teaching methods and learning outcomes to be achieved.

Every year, the content of the study program is assessed. During the audit, the practical implementation of the study program is evaluated, its compliance with the latest trends in the field is assessed, as well as the incorporation of scientific research results into the study process is taken into account. The renewed pedagogical teaching methods are also evaluated. The purpose of the assessment is to improve the content and teaching methods of the study program.

As a result of the audit, changes are made in the content of the study program during the year, by including the current issues of the industry in the study content.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**



The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods are used: group work, case studies, seminars, discussions, field trips to industry companies in order to acquire and/or reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations.

The study program is implemented in full-time, intramural form and part-time extramural form in Latvian and English, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. Since full-time students have less practical experience in the field of study, methods such as excursions to industry companies, lectures with industry experts, etc., are used. On the other hand, part-time students, who mostly have practical experience, are more likely used teaching methods as lectures, practical works, group works, homework and studies with analysis of different situations and their interpretation from both theoretical and practical aspects. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role. For example, in the study courses Fundamentals of Logistics, International Business Planning etc. students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their

achievements, as well as analyzing what they have learned in the course and in the learning process as a whole. In the study course Basics of Quality Management situation analysis is used, analyzing the existing processes and developing process improvement opportunities, in the study course Personnel Management (basic course) problem-based learning is used.

As it was stated above, then in addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours within the framework of study course (for example, *Introduction to Study Field, Common Commercial Policy of the European Union, International Protocol*, etc.) as well as thematic study tours.

For example, in academic year 2013/2014 thematic study tours and practical classes were organized at the following companies and institutions: Ltd. Stenders, JSC Valmieras stikla šķiedra, Ltd. Valmiermuižas alus, Ltd. Papīrfabrika" Līgatne, the Supreme Court of the Republic of Latvia, the temporary residence of the President of the Republic of Latvia in the House of Blackheads and the Saeima of the Republic of Latvia. Similarly, the traditional study tour to EU institutions and companies in Brussels, Belgium, was also organized academic year 2013/2014. Workshops and lectures were organized at the European Parliament, the European Commission and the national representatives. Study tours to Tienen Sugar Factory and other enterprises, as well as to the Europe Business Center were organized.

In academic year 2014/2015, thematic study tours and workshops were organized at the following companies and institutions: SJC Latvian Railways, Do It Ltd. and EU House. The traditional study tour to the EU institutions and companies in Brussels, Belgium, was also organized. Workshops and lectures were held at the European Parliament, the European Commission, national representatives and the Europe Business Center. Within the framework of the program a one-day trip to Luxembourg was also organized, where meetings were held at the EU Court of Justice, the European Investment Bank and Arcerol Mittal.

In academic year 2015/2016, the annual study visit to Brussels (Belgium) took place 6 months behind schedule because of terrorist acts at the Brussels airport. During these 6 months, regular lectures were held at the EU House (Riga, Latvia), as well as a practical study tour was organized in cooperation with Ltd. Schenker, during which the students focused on various international transportation issues, as well as warehouse operations and the railway transportation.

In academic year 2016/2017, thematic study tours and workshops were organized at the following companies and institutions: EU House, Ministry of Economics, MSC Shared Service Center, Riga Universal Terminal.

The same study tours and workshops were held in academic year 2016/2017. In academic year 2008/2012, an annual study visit to Brussels took place, where students attended 3 thematic lectures at the European Commission, met a member of the Vice President of the European Commission for the Euro and Social Dialogue,

visited the European Parliament, and Parlamentarium Visitor Centre. A lecture by Artis Pabriks MEP was attended. The program also included a lecture and discussion on energy issues at Rioglass Solar, a solar and renewable energy technology company, as well as a traditional visit was organized to the chocolate company Concept Chocolate. The students also had the opportunity to visit the Embassy of the Republic of Latvia in the Kingdom of Belgium and the Permanent Representation of the Republic of Latvia to the European Union, as well as to attend a lecture and a discussion at the Europe Business Center led by Peter Sennekamp.

In academic year 2017/2018, the cooperation with the Latvian Investment and Development Agency (LIDA) in the field of research projects continued successfully throughout the academic year.

In academic year 2018/2019, a study tour to Tallinn University of Technology (TTU) was organized, where students were acquainted with the university as such, participated in lectures organized by TTU and met with Estonian entrepreneurs. The students also had the opportunity to visit some internationally renowned Estonian companies such as Tallink Grupp and LHV Bank. Thematic study tours and workshops were also organized at Gateway & Partners and the Freeport of Riga. The cooperation with the EU House continued, where students met with the EU Home Information Consultant Dārta Ošeniece, economist of the European Commission Representation in Latvia Mārtiņš Zemītis and representatives of the European Parliament in Riga office.

In academic year 2019/2020, thematic study tours and workshops were organized in the autumn of the academic year at the following companies and institutions: EU House and the Embassy of the United States of America in Latvia. In addition in this academic year was organized study visits to consultation enterprise "Gateway & Partners", IT company "Accenture" as well as guest lecture to conference TechChill organizers.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform, is used regularly for the implementation of the program by the students of the study program as well as the academic staff and visiting lecturers. The portal provides the student with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the study course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student's knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, and are available other audio / video and technical aids.

In academic matters, the individual approach is provided in accordance with the

methodology approved by the RTU Rector's decree "On Teacher Work Planning Guidelines", which stipulates that the lecturer should provide consultations to every 25 students in the lecture stream in the amount of 15%. In addition, separate counseling hours are provided for the management of study papers and projects, internships and graduation papers. Pre-test tutorial are organized before exams. If necessary, students can contact the instructor directly outside the tuition hours by posting current questions in the form of news or relevant study course in the forum ORTUS or by email.

At the end of each semester, the instructors of the study course submit their course assessments to record-keepers, as well as record them in the ORTUS system for a particular study course. Students' learning outcomes are analyzed both in the course group meetings with the students and in the meetings organized by the study program administration.

The results of the students' knowledge assessment are discussed at the department meeting twice in the academic year (at the end of each semester); they are collected and evaluated by the administration of the study program and serve as a basis for further improvement of the study process. The learning outcomes are discussed and analyzed in cooperation with the instructors involved in the study program.

The description of each study course includes a section on the skills and competences that the student must acquire during the course (see the Register of Study Courses: [www.ortus.lv](http://www.ortus.lv)). Problem-solving skills are developed in case studies, study projects, which are supposed to be independently elaborated, individual activity of students, according to the latest trends of logistics development in the world and in the European Union; as well as obeying the status and characteristics of Latvia as a transit country. In the form of dialogue, students can express their opinion, share their experience and explain the problem, as well as understand the nature of the topic.

On May 29, 2017, RTU Senate approved "New Edition of the Regulation on the Assessment of Learning Outcomes", which was included in RTU Study Regulations. Interim tests (assessment tests, independent work, etc.) are organized according to the Regulation in order to ensure systematic control of the acquired knowledge. It also introduces the procedure for passing tests and examinations, the terms and conditions for academic arrears, responsibilities of the academic staff regarding the students' assessment, the student's rights and duties in the tests, and the appeal and review procedures. Interim test results and assessments are published in the ORTUS system for a given study course. Errors are analyzed and students are informed about them. Error analysis enables students to better understand uncertainty and eliminates a lack of knowledge or misunderstanding of certain issues, which increases students' motivation to achieve ever better results.

Students can participate in the improvement of the study process directly, by expressing their thoughts to: the instructor of the study course; the head of the study

program; the head of the department or, with the help of the student self-government. The student self-government is represented at the Council of the Faculty of Engineering Economics and Management, RTU Senate commissions, as well as at RTU Academic Assembly.

In administrative matters, students are given the opportunity to meet with the program management during admission hours to address individual issues. In case of problematic situations, students are invited to discuss them with the management of the study program. Current information is placed at the International Business and Customs institute website, messages are sent to students in the ORTUS system, e-mail and telephone are used for individual communication. Students' meetings with the study program director are organized on a regular basis, providing students with the opportunity to discuss current issues. In this way, maximum quality of the study process is achieved by responding to student requests.

Student surveys and student meetings are of particular importance, which are organized on a regular basis twice a year and reflect the students' views on both a particular course and the organization of the study process. In addition, at the end of each semester students are provided with questionnaires, at RTU electronic environment ORTUS, where students express their opinion on the implementation of a particular study course, and the evaluation of the instructor's work. The results of the surveys are summarized and discussed by the administration of the study program and at the meetings of the Department of International Business, Transport Economics and Logistics; and at the FEEM Council, if necessary.

Consequently, the principles of student-centered education are taken into account in the implementation of the whole study process.

### *1. Students' involvement in the study process and content improvement*

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

### *2. Learning outcomes*

The assessment of the study courses of the program and the number of credit points are related to the study results. Students are informed about the results of each study course. The academic staff associate the results of the course with the results of the study program, as well as argue the necessity of this course

### *3. Mobility*

In the program of Organization and Management of International Economic Relations, mobility resources are used to improve the pedagogical process of the institution,

because the student-centered approach to education is based on a strong pedagogical process. Academic staff of foreign higher education institutions is involved in the implementation of the study program, for example, in the spring semester of the academic year 2018/2019 part of the course on *Current Trends in International Business* was taught by visiting professors Brigitte Plancon and Sylvain Verron Pequignot from the French School of Management and International Trade (La Salle - Ecole de Management et Commerce International), but in the academic year 2019./2020 David Shakarishvili provided lectures about *International economics and security*, thus program academic staff can adopt good practices that guest lecturers can share.

#### 4. *Social dimension*

For students of this program, the study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey (Appendix 2.3.1), which indicates that almost 79.00% of students work through the studies. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

#### 5. *Teaching and learning methods*

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed (for example, study courses *Management of International Economic Relations (study project)*, *International Business Planning (study project)*, *International Project Management (study project)*), group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other (for example, *Current Trends in International Business*). Study tours and guest lectures are also held regularly (see page 8.-9.). Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype etc.

#### 6. *Learning environment*

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory with various databases during their research process.

#### 7. *Development of competences of the academic staff*

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods.

#### 8. *Extra-curricular activities*

The program management supports the student self-government and encourages students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning. Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. Each year the students scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses are published.

For example, in academic year 2013/2014, the student of the program presented research work "The European Union Support for Non-Governmental Organization Development in Latvia" at the 54th International Scientific Conference of RTU.

In academic year 2013/2014, theses of Student Scientific Conference Theses "Topical Issues of International Economic Relations, Transport and Logistics 2013", Part 2 (Student Scientific Conference Theses, November 27-28, 2013, RTU Publishing House, Riga, 2014, 79 p.) and "Topical Issues in International Economic Relations, Transport and Logistics 2014", Part 1 (Abstracts of Student Scientific Conference, April 24-26, 2014, RTU Publishing House, Riga, 2014, 118 p.). In total 29 students' theses have been published.

In academic year 2014/2015, theses of Student Scientific Conference "Topical Issues of International Economic Relations, Transport and Logistics 2014" (Part 2) (26-27 November, 2014, RTU Press, Riga, 2014, 97 p.) and Theses of Student Scientific Conference "Topical Issues in International Economic Relations, Transport and Logistics 2015" (Part 1) (25-28 April 2015, RTU Press, Riga, 2015, 129 p.) were published. In total, theses of research of 42 students were published.

In academic year 2015/2016 Students' Scientific Conference Theses "Topical Issues of International Business, Transport and Logistics 2015" Part 2 (Student Scientific Conference Theses, November 23-26, 2015, RTU Publishing House, Riga, 2016, 76 p.). A total of 44 students participated in the study program, but the best student theses on 8 studies of the students were published.

In academic year 2016/2017, the joint 57th RTU student scientific and technical conference sections of the Department of International Economic Relations, Transport Economics and Logistics and the Student Scientific Conference theses "Current Issues of International Economic Relations, Transport and Logistics 2016" (Student Scientific Conference Abstracts, 2016). April 18-19, and November 23-24, RTU Publishing House, Riga, 2017, 100 pages). A total of 28 students participated in the conference,

theses of 6 students were published.

In academic year 2017/2018, 24 students participated in the student scientific conference “Topical Issues of International Economic Relations, Transport and Logistics 2017”. Since academic year 2017/2018, the theses of the student scientific conference have been available in electronic version.

In academic year 2018/2019, 26 students participated in the student scientific conference “Topical Issues of International Economic Relations, Transport and Logistics 2018”.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship is divided into 2 parts: Specialization Placement (Part 1) 16 CP and Designing Practical Placement (Part 2, 10 CP). The internship is carried out in the last year of studies, when all theoretical study courses have been learned and students can apply the knowledge they acquired in practice. Each internship has a set of internship tasks specified in the study course description:

- to develop the student’s ability to work independently in a business or professional environment;
- to make economically sound, practically applicable decisions to solve problems and / or topical issues;
- to develop and strengthen the student’s communication skills, incl. ability to publicly present one’s opinion and gain independent work skills.

The aim and tasks of the internship are closely related to the duties and tasks specified in the requirements of professional qualification, which ensures the consolidation of theoretical knowledge and its application in practice. The internship supervisor at the place of the internship gives feedback (completes the review), which indicates the evaluation of the students’ knowledge, theoretical preparedness, communication skills, etc. As a result, there is a continuous close link with the industry, thus enabling the curriculum to be further developed and improved to meet the requirements of the labor market. For each internship, the student draws up a report, which is presented in front of the internship assessment commission at the respective department.

Internship outside the educational institution is an integral part of the professional programs that students have to complete in accordance with Cabinet Regulation No. 512 “Regulations on the State Standard of the Second Level Professional Higher



Education” as of 26 August 2014, RTU Senate Decision No.467 “On the Structure of the Second Level Professional Study Programs” as of 29 April 2002, and RTU Senate Resolution No. 626 “The New Edition of the Internship Management Procedure at Riga Technical University” as of 28 January 2019.

The internship is conducted in accordance with the Regulation, the general requirements of which have been elaborated by RTU Senate. The Regulation is available at RTU homepage and ORTUS system.

Taking into account the above-mentioned documents, the administration of the study program has developed the Regulation “Methodological Guidelines for the Bachelor Professional Study Program “Business Logistics”” ([www.sesmi.rtu.lv](http://www.sesmi.rtu.lv)). For each student, this rules is available in internet portal ORTUS. Prior to internship, a meeting with the director of the study programme should be organised, during which everything about the records of the internship, the course of the internship and the defence. During the internship, students communicate with the internship coordinator from the University side as well as the internship supervisor from companies side.

Pursuant to the Regulation, the place of internship may be a public authority, a company or an organization. The aim of the internship is to systematize, consolidate and expand the student’s theoretical knowledge and to acquire practical skills and abilities during the internship. Tasks performed during the internship should be directly related to the study program “Organization and Management of International Economic Relations” and/or study field in order to consolidate the theoretical knowledge acquired during the studies and to develop the ability to independently perform the assigned tasks during the internship, to study, analyze and solve problems.

During the internship, the student should:

- acquire the professional skills required by the professional qualification requirements to promote professional competence and apply industry-specific knowledge in practice;
- develop the ability to analytically formulate and address industry issues;
- acquire independent and teamwork skills;
- demonstrate an understanding of the laws and regulations governing the operation and management of the company, the business environment, occupational safety and health, quality control and environmental protection;
- apply the principles of professional ethics and corporate social responsibility.

Internship management issues are stipulated in the Regulation. The tripartite agreements about students internship is concluded with company and student-intern.

Students of study program implemented both in Latvian and English have the opportunity to choose the internship place from both places of previous years' and those offered by industry as at that moment and to choose others at their own discretion (provided that they correspond to the description of the responsibilities of the profession to be acquired). Appendix 2.4.1. *List of students' internship places* lists

the most frequently chosen internship places of the professional Bachelor study program “Organization and Management of International Economic Relations” during the last three study years. The table demonstrates that Ltd. GatewayBaltic, Accenture Latvian branch and Ltd. Glamoralle are the most popular companies chosen for internship.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The students formulate and elaborate the content of the graduation paper according to the qualification to be acquired, which means that the graduation paper deals with different international relations processes and their improvement, which are necessarily substantiated in the section of economic calculations. In Bachelor Theses, the topicality of the chosen theme is indicated, and the researched field is analyzed.

Analyzing the performance during all academic years, it can be concluded that graduates mainly obtained grade “7” (good) (31.91%). Grade “10” (outstanding) was obtained by 3.55% of graduates, while grades “9” (excellent) and “8” (very good) – by 14.18% and 19.86% of graduates, respectively. None of the graduates received grade “4” (almost satisfactory) for the graduation paper.

Bachelor theses are reviewed only by representatives of the industry. Graduation paper viva-voce commissions always involve leading experts in the field, experts with great work experience. The commission consists of 6-7 members, of whom 4-5 are representatives of the field (including the chair of the commission who has a Doctoral degree) and 1-2 are employees involved in the implementation of the study program. This ensures the involvement of employers in the study process, which directly implies a regular link between the study program and the labor market. Leading employees of Latvian Investment and Development Agency, Ltd. Pure Chocolate, Elko Grupa, Hansamatrix Ltd., GEFCO Ltd., Public Utilities Commission, Ministry of Economics and other institutions and companies participated in the defense of Bachelor Theses.

Analyzing the compliance with the state standard it can be concluded that:

- the aims of the study program are in accordance with the requirements set by the state education standard;
- the volume of the study program and its structural division corresponds to the one defined in the state education standard;
- the content of the program meets the requirements of the state standard. The core parts of the program are study courses, internship outside the higher education institution, and state examination – the Bachelor Thesis.
- Program evaluation principles are in conformity with the state education standard:

- positive achievements are summed up;
- assessment is compulsory at the end of each study course;
- overall assessment, consisting of several types of assessment tests;
- openness and clarity of requirements – the administration or academic staff of the study program explain examination requirements to all interested persons at the beginning of the study course; the examination requirements are also available at the ORTUS e-study system together with the course description;
- variety of tests – independent work, tests, seminars, public presentation of study projects, tests, exams, public presentation of internship, Bachelor Thesis, etc.

The content and scope of tests correspond to the course syllabus and the requirements of professional qualification skills and knowledge. All prerequisites are stipulated in the description of each study course.

The content of the study program is designed according to the requirements of professional qualification (International Relations Manager). The evaluation of the conformity of the study program to the occupational standard is provided in Appendix 7. Accordingly, for each level of knowledge (perception, understanding or use) defined in the occupational standard, courses are developed with appropriate content/topics. For example, at a conceptual level, the student should master the theoretical aspects of international business project management (for example, as part of the International Project Management and International Project Management (study project) courses); course Intellectual property and its protection – at understanding level, but at the level of use, the student must, for example, acquire intercultural communication (this knowledge is acquired in the course Intercultural Communication).

Therefore, it can be concluded that the Bachelor professional study program “Organization and Management of International Economic Relations” meets the requirements set by the the requirements of professional qualification.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

Student feedback is collected in several ways: through electronic surveys in the ORTUS system, surveys created by the administration of the study program on individual study processes and academic staff members, as well as at student meetings, which are organized at least once a semester.

RTU Study Department regularly conducts surveys in the Ortus portal, including the survey on the evaluation of the work of the academic staff, which is organized twice during the academic year. In this way, students can provide feedback on the quality of the study courses and the professional performance of the academic staff. The results

of the surveys serve as a basis for the improvement of the study process.

As a result of the surveys, it is possible to find out whether students are satisfied with the study process in general, the work of program administration and record keeping, as well as with the content of each study course and the qualification of the academic staff. The results of the surveys are discussed and analyzed at the department meetings.

Students can also make their recommendations for the improvement of the study process. Thus, for example, following the recommendations of the students, more attention is paid to field trips, as well as year by year new study courses are delivered in English.

For example, in academic year 2018/2019 and 2019/2020 in English was delivered courses as *Intercultural Communication*, *International Trade*, *International Marketing*, *International Protocol* etc. Similarly, following proposals from student questionnaires, industry experts, highly qualified professionals are involved in teaching courses (see Appendix 4.1.1. *Basic information about the academic staff involved in the implementation of the study program*).

At the end of each academic year, graduate surveys are regularly conducted. Graduate surveys are conducted both centrally in the ORTUS system following a unified RTU survey standard and locally organized by the study program administration.

The graduates can express their opinion about the study process and its quality, as well as give evaluation of the administrative and academic staff of the study program, as well as assess employment opportunities after graduation, content of the study program, etc.

From academic year 2014/2015 to academic year 2018/2019, on average, 61.4% of the total number of graduates were surveyed each year (see Appendix 2.3.1).

Graduates' overall satisfaction with the choice of the study program is high. From academic year 2014/2015 to academic year 2018/2019, on average, 65.56% of graduates were satisfied with the choice of the study program, 21.02% had a neutral opinion, but 14.02% were not satisfied with the choice of the study program. The highest number of graduates satisfied with the chosen study program was observed in academic year 2016/2017, when 65.56% of the graduates were fully satisfied with the choice of the study program, and in academic year 2018/2019, 60% of the graduates gave positive feedback.

The overall satisfaction of the graduates with the acquired theoretical knowledge is high. From academic year 2014/2015 to academic year 2018/2019, on average, 68.14% of graduates were satisfied with the theoretical knowledge acquired during the academic year, 12.98% of the graduates had neutral feedback, and 16.36% were not satisfied with the quality of the acquired theoretical knowledge. The highest number of the graduates satisfied with the acquired theoretical knowledge was

observed in academic year 2017/2018 when 30.8% of the graduates were fully satisfied with the acquired theoretical knowledge, and in academic year 2017/2018, 29.5% of the graduates gave positive feedback.

Graduates positively evaluate the relationship between lectures and practical classes. From academic year 2014/2015 to academic year 2018/2019, on average 52.62% of graduates were satisfied with the lecture-to-practical class ratio, 18.98% had a neutral opinion, and 27.74% were not satisfied with the lecture-to-practical class ratio. The highest number of graduates satisfied with the lecture-to-practical class ratio was observed in academic year 2017/2018, when 30.80% of the graduates were fully satisfied with the lecture-to-practical class ratio. Taking into account the graduate survey results concerning the involvement of more experts and professionals in the study process, specialists are annually invited to deliver lectures.

Graduates positively evaluate the availability of study aids. From academic year 2014/2015 to academic year 2018/2019, on average, 84.36% of graduates were satisfied with the availability of study aids, 14.10% gave neutral feedback, while 1.54% were not satisfied with the availability of study aids. The highest number of graduates satisfied with the availability of the necessary study aids was observed in academic year 2014/2015, when 73.30% of graduates were fully satisfied with the availability of study aids, and in academic year 2017/2018, 69.20% of graduates gave positive feedback. Even though students have access to extensive library resources (see Appendix 2.6.1), and the library is open 24 hours a day, not all students are interested in seeking additional literature for their study process, as well as their learning habits are changing.

One of the most important indicators is the employment of graduates, which proves the necessity of specialists in the labor market. The employment of students and graduates of the study program “Organization and Management of International Economic Relations” is high.

Students are mostly employed during their studies. From academic year 2014/2015 to academic year 2018/2019, on average, 47.30% of graduates were combining work and their studies, only 19.20% of graduates worked part-time. The highest student employment ratio during the study period was observed in academic year 2017/2018, when 53.80% of students were employed on a full-time basis, while the lowest employment rate was observed in academic year 2018/2019, when only 40.00% of respondents gave positive feedback.

The graduates of the study program mostly held positions that correspond to their specialization. From academic year 2014/2015 to academic year 2018/2019, on average, 49.68% of graduates hold positions that corresponded to their specialization, while 47.88% of the graduates hold positions that were not related to their specialization. The highest number of graduates employed in the specialty occupation was observed in academic year 2014/2015, when 33.30% of the graduates were employed in the specialty occupation. The lowest number of graduates employed in

the specialty occupation was observed in academic year 2016/2017, when only 11.80% of respondents gave positive feedback.

In the survey, graduates also make recommendations for the improvement of the study program:

- more state budget funded seats could be provided;
- to ensure partially implementation of study courses in English;
- the number of practical classes could be increased and the number of lectures could be decreased.
- more visiting lecturers specializing in the field could be attracted to the implementation of the study program.

The evaluation of the program, the study process, the acquired knowledge and practical skills demonstrate the necessity to constantly improve the curriculum according to the new developments of the field. All the results obtained in the surveys are used for the improvement of the study process.

For example, the number of guest lecturers in comparison with the academic year 2013/2014 has increased by almost 70% from 19 guest lecturers in the academic year 2013/2014 to 27 guest lecturers in the academic year 2018/2019 (see Appendix 4.1.2. *Academic staff involved in the implementation of the study program* and Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program*).

For example, in year 2014 graduates of study program suggested to bring lectures more closer to practice, as well as to provide excursions to field companies at least 2-3 times per year. This was taken into account by providing students with a number of compulsory study excursions each year, as, for example, in academic year 2016/2017 was organized study excursions to Ministry of Economics, “MSC Shared Service Center” and “Riga Universal Terminal”, in academic year 2017/2018 to European Union House in Riga and Latvian Investment Development Agency, but in academic year 2018/2019 to “Gateway&Partners” as well as to Riga Freeport.

In order to ensure continuous monitoring of the program from the employers’ point of view, the employers’ opinions on the curriculum and students’ knowledge in the field of international economic relations are collected and analyzed.

From academic year 2016/2017 to academic year 2018/2019, on average, the survey was undertaken by 16 employers who employed the students and/or graduates of the study program “Organization and Management of International Economic Relations” (see Appendix 2.6.2).

On average, 85.00% of employers characterized the students and graduates as responsible, accurate and disciplined. During the reporting period, on average, employers’ satisfaction with students’ and graduates’ ability to meet work deadlines, as well as to perform duties and to address difficult situations, increased on average by 15.00%.

On average, 90.00% of employers considered that the theoretical knowledge and practical skills of the students of the program corresponded to the requirements of the labor market. 75% of employers particularly valued students’ ability to delve

deeper into work processes and to do a large amount of work quickly and efficiently.

91.00% of the surveyed employers evaluated the quality of students' and graduates' work as high; moreover, the work was done promptly, accurately, independently, as well as meeting deadlines and workplace standards.

The employers positively evaluated the business skills of program students and graduates, especially highlights the ability to work individually and in a team, good communication and foreign language skills, knowledge of business etiquette and ability to adapt to different situations.

On average, 85.00% of employers considered that students and graduates of the program successfully used not only theoretical skills, such as skills of document drawing up and formatting, but also practical skills such as business communication, knowledge of foreign languages, organizational skills and the ability to plan one's work and processes.

According to the survey results, on average, 99.00% of employers introduced students or graduates to internal company regulations, databases, industry regulations, and standard office software required to complete their duties when starting internship or job. 70.00% of employers indicated that export documents are of particular importance.

When receiving employers' feedback about this study programme students - trainees, in 100% of questionnaires, entrepreneurs have highlighted that students have very good theoretical and practical skills and no recommendations for improving the content of the programme on the part of employers.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

The incoming students in this program are from different countries. This is due to the fact that the program courses are partly implemented in English and are offered for Erasmus+ student mobility.

Students of the study program take an opportunity provided by international mobility programs. From academic year 2013/2014 to academic year 2018/2019, 38 students undertook Erasmus+ study mobility (see Appendix 5): 9 students went to Germany (Pforzheim University of Applied Sciences, University of Applied Sciences Ruhr West), 6 to Cyprus (University of Nicosia, Frederic University), 1 to Austria (CAMPUS 02 University of Applied Sciences), 3 to Belgium (Vrije Universiteit Brussels), 7 to Czech Republic (Technical University of Liberec, Brno University of Technology, Tomas Bata University in Zlin, Metropolitan University Prague), 4 to Spain (University of Murcia, University of Huelva, University of Barcelona), 2 to Croatia (University of Split), 3 to

Netherlands (Inholland University of Applied Sciences, Rotterdam University of Applied Sciences), one to Estonia (Tallinn University of Technology), Franciju (IDRAC Business School), Turciju (Dokuz Eylul University) and Hungary (Obuda University).

Highly acclaimed study programs at partner institutions that offer international economic relations courses are selected. The feedback from the partner universities on the study program "Organization and Management of International Economic Relations" is very positive, confirming that the study program of RTU corresponds to the international quality level.

In the reporting period, 6 students went on the traineeship mobility: in academic year 2013/2014 to Glisa Paris (France), British International School (the UK), DSD NOELL GmbH (Germany), in academic year 2014/2015 - to Faspol Ltd (Poland), in academic year 2015/2016 - to DACHSR SE Logistikzentrum Hof (Germany) and Montan-Universitaet Leoben (Austria), in academic year 2016/2017 - to PE Conferences - Global Conferences for Tomorrow (Portugal) and Ulaskan Otomotiv (Turkey).

Data on student mobility during each academic year were analyzed (see Appendix 2.7.1).

In academic year 2013/2014, 12 students spent a semester at partner institutions as participants of the Erasmus+ program: Inholland University of Applied Sciences (the Netherlands), Technical University of Liberec (the Czech Republic), VIA University College (Denmark), Univeristy of Nicosia (Cyprus), University of Barcelona (Spain), Dokuz Eylul University (Turkey), Brno University of Technology (he Czech Republic), University of Huelva (Spain), and University of Murcia (Spain). In turn, 3 students of the study program participated in the traineeship mobility program at Gilsa Paris (France), British International School (the UK) and DSD NOELL GmbH (Germany).

In academic year 2014/2015, 6 students of the study program spent a semester at partner institutions as participants of the Erasmus+ program: University of Nicosia (Cyprus), Tallinn University of Technology (Estonia), Metropolitan University Prague (the Czech Republic), Tomas Bata University in Zlin (the Czech Republic), Pforzheim University of Applied Sciences (Germany). In turn, 1 student of the study program participated in the traineeship mobility program at Faspol Ltd (Poland).

In academic year 2015/2016, 6 students of the study program spent a semester at partner institutions as participants of the Erasmus+ program: IDRAC Business School (France), Vrije Universiteit Brussels (Belgium), Pforzheim University of Applied Sciences (Germany), Tomas Bata University in Zlin (the Czech Republic). In turn, 2 students of the study program participated in the traineeship mobility program at PE Conferences - Global Conferences for Tomorrow (Portugal) and Ulaskan Otomotiv (Turkey).

In academic year 2016/2017, 3 students of the study program spent a semester at partner institutions as participants of the Erasmus+ program: Pforzheim University for Applied Sciences (Germany), University of Applied Sciences Ruhr West (Germany).



In academic year 2017/2018, 8 students of the study program spent a semester at partner institutions as participants of the Erasmus+ program: Pforzheim University for Applied Sciences (Germany), Metropolitan University Prague (the Czech Republic), Rotterdam University of Applied Sciences (the Netherlands), University of Split (Croatia) and Obuda University (Hungary).

In academic year 2018/2019, 4 students of the study program spent a semester at partner institutions as participants of the Erasmus+ program: CAMPUS 02 University of Applied Sciences (Austria), University of Split (Croatia), INHOLLAND University of Applied Sciences (the Netherlands) and Frederic University (Cyprus).

Partner universities hosting the students of the study program "Organization and Management of International Economic Relations" provided positive feedback on the level of students' theoretical and practical knowledge.

Recognition of study courses acquired during the mobility takes place in accordance with RTU Vice-Rector for Studies Nr. 01000-1.1 / 240 of the Order "On Amending the Erasmus + Student Mobility Arrangement" and the Order of 4 April 2016 No. 02000-1.1 / 29 Order "On Recognition of Study Courses Acquired in Other Higher Education Institutions and Study Programs". Recognition of the ERASMUS + period is made by the study program director upon the student's return from ERASMUS + studies, based on the student's transcript of records and a pre-signed application for course recognition.

For a successful recognition of study courses, the student carefully selects the most appropriate partner institution for the study program and field before embarking on ERASMUS + studies. The student's course of study must coincide wholly or in part with the courses offered by the selected partner HEI, which is also co-ordinated in the application form with the ERASMUS + coordinator of the structural unit and approved by the study program director.

During the recognition process, the grades obtained during ERASMUS + studies are not converted into a 10-point grading scale, but successfully completed partner institution courses are written "recognized", thus recognizing the partner institution's credit points. If the course recognition application foresees changes in the study program and the student has been successful during ERASMUS + studies, an order of the Vice Rector for Studies regarding individual changes in the study program is prepared. Once an order has been issued for the individual amendment of the study program, the courses of the partner higher education institution shall be entered in the RTU Register of Study Courses and the student's individual plan shall be amended to include the courses acquired abroad. Modifications to the study program shall only be made at the expense of the Part B courses by replacing the courses with those of the partner higher education institution.

In the overall assessment, it can be considered that the number of outgoing Erasmus+ students is high and the level of students' knowledge corresponds to the level of knowledge, skills and competences required at the study courses implemented by

other internationally recognized higher education institutions.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The available resources and provision comply with the study program implementation requirements and facilitate achievement of learning outcomes.

The study program “Organization and Management of International Economic Relations” is implemented on a fee basis and there also are 20 state budget funded seats. Data on funding are given in the table below (see table 3.1.).

Table 3.1.

**Funding of the Study Program**

<b>Academic Year</b>	<b>Subsidy</b>	<b>Tuition fee for the program</b>	<b>Total funding for the program</b>	<b>Cost per student</b>
2013/2014	21 821 EUR	141 829 EUR	163 650 EUR	1 866 EUR
2014/2015	22 742 EUR	124 535 EUR	147 277 EUR	1 866 EUR
2015/2016	22 302 EUR	93 583 EUR	115 885 EUR	1 866 EUR
2016/2017	22 418 EUR	88 024 EUR	110 442 EUR	1 866 EUR
2017/2018	23 262 EUR	123 075 EUR	146 337 EUR	1 951 EUR
2018/2019	24 236 EUR	121 839 EUR	146 075 EUR	2 042 EUR

For example, in academic year 2013/2014 the study program is mainly implemented through tuition fee funding. State budget funding accounts for less than 1/5 of the total funding of the program, or 15.4%, but in academic year 2017/2018, the total funding of the study program also increased as the number of newly admitted students (including foreign students) increased.

In academic year 2018/2019, the total revenue of the academic year did not change significantly compared to the previous year, but state budget grants accounted for 16.3% of the total income.

An increase in the number of state budget funded seats would be welcomed, which

would also encourage growth in the number of students at the program.

The following facilities are used in the implementation of the program:

- auditoriums (both for lectures and practical classes);
- computer rooms;
- resource room;
- RTU Scientific Library.

The rest of the infrastructure available to RTU and the Faculty of Engineering Economics and Management (classrooms, learning resource offices, sports complexes, canteens, wardrobes, etc.) is used for the implementation of the program. The program is also serviced by RTU Accounting Department, Student Records Management Department, Archive etc.

The classrooms are upgraded, new resource classrooms and study laboratories are created, office equipment is upgraded, study literature is purchased, computers are purchased and upgraded for the study process and other activities are carried out. In addition, lecture rooms and administration offices are equipped with computers.

Students have access to **databases subscribed by RTU Library:**

- **ProQuest Ebook Central** contains approximately 51,700 full-text ebooks published by the world's leading scientific publishing houses - Elsevier, Wiley, Springer, Oxford Press, Emerald etc. in various fields of science, as well as in economics, finance, and business.
- **ScienceDirect** - a database of scientific, technical and medical articles by Elsevier. Over 2,500 full-text journals (Freedom Collection) have been made available since 2002 and 354 full-text books in various fields of science, as well as in economics, finance, business, management and accounting.
- **Academic Search Complete EBSCOhost** - 8,800 full-text periodicals in various fields of science, as well as in economics, finance, business, management and accounting.
- **Applied Science & Technology Source EBSCOhost** - 1,200 full-text periodicals (applied mathematics, computer science, artificial intelligence, robotics, mechanical engineering, aeronautics, power engineering, chemical technology, and textile industry).
- **Business Source Ultimate EBSCOhost** - 5,100 full-text periodicals (management information systems, management, production management, marketing, economics, finance, accounting, international trade, and insurance).
- **EBSCOhost eBook Academic Collection** contains approximately 180,000 full-text ebooks in English, published by the world's leading scientific publishing houses in various fields of science, including economics, finance, business, management, and accounting.
- **Wiley Online Library** has more than 1,360 full-text journals (Full Collection) since 1997 in various fields of science, as well as in economics, finance, business, management, and accounting.

- **SpringerLink** has approximately 13,100 books published by Springer in the period of 2014–2018 in various fields of science, as well as in business and economics.
- **The International Monetary Fund (IMF) eLibrary** offers access to important global economic information – IMF resources, periodicals, books, statistical databases and studies on macroeconomics, financial crises, globalization, trade, international relations, politics, etc.
- **LETA fields:** Construction and Real Estate, Macroeconomics, Industry, Trade and Services, Transport and Transportation, Tourism, Hotel Business.
- **Latvian Standards Database.**

Search results related to international economic relations for the past 5 years in the Primo and Exlibris databases are shown in Appendix 2.6.1.

RTU Scientific Library has a wide range of books, etc. corresponding to the study program “Organization and Management of International Economic Relations”. It includes a variety of information resources:

1. Andersen, Torben Juul. *Global Strategic Responsiveness: Exploiting Frontline Information in the Adaptive Multinational Enterprise* / Torben Juul Andersen and Carina Antonia Hallin. Abingdon, Oxon; New York, NY: Routledge, 2017. xiii, 159 p.: illustrations. ISBN 9781138204621 (bound).
2. Riga Technical University. *Topical Issues of International Business, Transport and Logistics 2016: Joint Proceedings of the 57th RTU Student Scientific and Technical Conference, Sections of the Department of International Business, Transport Economics and Logistics (DIBTEL), and DIBTEL Student Scientific Conference: 18–19 April 2016, and 23–24 November 2016* / [Editorial Board: Velga Ozoliņa, Remigijš Počs; editor-in-chief Nadežda Škindere; literary editor Ieva Zarāne; cover designer Ekaterina Lukina]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2017. 100 p.: scheme; 24 cm. ISBN 9789934109133 (paperback).
3. Rugman, Alan M. *International Business* / Alan M. Rugman, Simon Collinson, University of Birmingham, Rajneesh Narula, Henley Business School, the University of Reading. 7th edition. Harlow, United Kingdom; New York: Pearson Education, 2017. xxxvi, 755 p.: illustrations. ISBN 9781292064390 (paperback).
4. O'Brien, Robert. *Global Political Economy: Evolution and Dynamics* / Robert O'Brien & Marc Williams. 5th edition, revised and updated. New York, NY: Palgrave Macmillan, 2016. xv, 360 p.; illustrations. ISBN 9781137523129 (paperback).
5. Riga Technical University. *Topical Issues of International Business, Transport and Logistics 2015: Proceedings of RTU Student Scientific and Technical Conference: 23–26 June 2015 November* / [editorial board: Velga Ozoliņa, Remigijš Počs; literary editor Irēna Skārda; cover designer Ekaterina Lukina]; Riga Technical University. Faculty of Engineering Economics and Management.

- Institute of International Economic Relations and Customs. Riga: RTU Press, 2016, 76 p; 24 cm. ISBN 9789934107719 (paperback).
6. Krugman, Paul R., International Economics: Theory & Policy / Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz. 10th, global ed. Harlow: Pearson, ©2015. 785 p.: il., tab., kart.; 26 cm. The Pearson series in economics ISBN 9781292019550 (global ed.)
  7. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2015: Proceedings of the 56th RTU Student Scientific and Technical Conference, Section of the Department of International Business, Transport Economics and Logistics: 25–28 April 2015 / Editorial Board: Velga Ozoliņa, Remigijs Počs; cover designer Ekaterina Lukina; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Riga: RTU Press, 2015, 129 p.; 25 cm. ISBN 9789934107160 (paperback).
  8. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2014: Proceedings of the Student Scientific Conference: 26–27 November 2014 / [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs; literary editor Silvija Minkevica]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2015, 98 p.: illustrations; 21 cm. ISBN 9789934106460 (paperback).
  9. Stranga, Aivars, Latvijas ārējie ekonomiskie sakari, 1919.-1940. gads: attiecības ar lielvalstīm (saimnieciskie, politiskie, diplomātiskie aspekti) = The Foreign Economic Relations of Latvia, 1919–1940: Relations with the Great Powers (Economic, Political and Diplomatic Aspects) / Aivars Stranga; [reviewers: Daina Bleiere, Viesturs Karnups; literary editor: Ruta Purīna]. [Riga]: Academic Press of the University of Latvia, 2015, 439 p.: facsimili, illustrations; 22 cm. Latvijas Universitātes Vēstures un filozofijas fakultātes raksti. Sērija "Vēsture" = Publications of the Faculty of History and Philosophy University of Latvia. Series: History; 3rd issue. ISBN 9789934180774 (bound).
  10. Daniels, Joseph P. Global Economic Issues and Policies / Joseph P. Daniels and David D. VanHoose. 3rd edition. London; New York: Routledge Taylor & Francis Group, 2014. xix, 506 p.: illustrations; 25 cm. ISBN 9780415710206 (hbk)
  11. Hill, Charles W. L. International Business: Competing in the Global Marketplace / Charles W. L. Hill, University of Washington. 10th, [global] edition. New York, NY : McGraw Hill Education, ©2014. xxxiv, 654 p.: illustrations, charts; 28 cm ISBN 9780077158958 (bound).
  12. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2014: Proceedings of the Student Scientific Conference: 24–26 April 2014 / [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of

International Business, Transport Economics and Logistics. Riga: RTU Press, 2014, 118 p.; 21 cm. ISBN 9789934105760

13. Riga Technical University. Topical Issues of International Business, Transport and Logistics 2013: Proceedings of the Student Scientific Conference: 27–28 November 2013 / [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2014, 79 p.; illustrations; 21 cm. ISBN 9789934105173
14. Cho, Tong-sŏng From Adam Smith to Michael Porter: Evolution of Competitiveness Theory / Dong-Sung Cho & Hwy-Chang Moon. Extended edition. New Jersey: World Scientific, ©2013. xxii, 324 p.: illustrations; 24 cm. Asia-Pacific Business Series, vol. 7. ISBN 9789814401654 (hardback)
15. Riga Technical University. Topical Issues of International Economic Relations, Transport and Logistics 2013: Proceedings of the Student Scientific Conference: 8–11 May 2013. [editorial board: Astra Auziņa-Emsiņa, Remigijs Počs]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of International Economic Relations and Customs. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2013, 129 p.; 21 cm. ISBN 9789934104381
16. Мировая экономика: учебник для бакалавров: [учебник для студентов, обучающихся по специальностям 080105 (060400) “Финансы и кредит”, 080102 (060600) “Мировая экономика”, 080107 (351200) “Налоги и налогообложение”, 080109 (060500) “Бухгалтерский учет. анализ и аудит”] под редакцией Б.М. Смитиенко = The World Economy: A Textbook for Bachelors: [A textbook for students in the specialties 080105 (060400) “Finance and Credit”, 080102 (060600) “World Economy”, 080107 (351200) “Taxes and Taxation”, 080109 (060500) “Accounting. Analysis and Audit”] / edited by B.M. Smitienko; Financial University under the Government of the Russian Federation. 2nd ed., revised. and suppl. Moscow: Yurayt, 2013. 589, [1] p.; 22 cm. Bachelor. Advanced course. ISBN 9785991625968
17. and others

According to the professional qualification requirements, future International Relations managers should be familiar with the tax and customs field, students of the study program have the opportunity to improve their knowledge in the Customs Control Laboratory established by the Customs and Taxes Department of Faculty of Engineering Economics and Management, International Business and Customs Institute, with the support of the Customs Board of the State Revenue Service. The laboratory is equipped with a variety of measuring devices and technical tools used by customs officers in their daily work to inspect vehicles and persons, such as density and radiation flow meters, metal detectors, endoscopes, narcotics, etc., to check that vehicles are not smuggled goods. Special cages for hollow boards, car doors, seats, fuel tanks and tires have also been developed to train students' ability to find

smuggled goods. Thus, the laboratory simulates frequently used hiding places for the transportation of unauthorized goods. The laboratory is also equipped with techniques for showing various customs control training films and videos.

Therefore, the resources and provision of the study program are adequate to the needs of the study program; however, it is necessary to increase the number of state budget funded seats in the program.

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

**III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Academic staff members as well as highly qualified specialists in the field participate in the implementation of the program. The results of the student survey indicate that they highly appreciate the involvement of industry experts. During the past three years, representatives of associations and employees of international companies have been attracted; thus, students gain practical knowledge and experience related to organization and management of international relations. Information about the academic staff is presented in *Appendix 4.1.1. Basic information about the academic staff involved into implementation of study program* and in *Appendic RICSO list of academic staff*.

The table below shows information on changes in the academic staff involved in the implementation of the study program (see table. 4.1.).

Table 4.1.

Changes in the Academic Staff in the Period of 2013-2019

Year	Professor	Associate professor	Assistant professor	Lecturer	Industry specialist
2013/2014	9	9	15	4	19
2014/2015	8	10	15	4	12
2015/2016	7	9	16	4	12
2016/2017	8	15	16	8	17
2017/2018	7	14	13	6	22
2018/2019	7	11	9	5	27
2019/2020	8	11	9	4	28

It can be seen from the table that every year more and more highly qualified specialists and experts are involved, thus bringing the content of the program as close as possible to the specifics and topicalities of the field. This tendency has appeared due to the suggestions in the student surveys and the fact that this is a professional Bachelor study program (see Appendix 4.1.2. *Academic staff participated in study program implementation*).

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

To ensure the quality of the study content, the academic staff members involved in the implementation of the program, regularly improve their professional and academic knowledge by participating in methodological seminars, conferences (national and international), projects and by conducting scientific and research work (see Appendix 4.2.1, Appendix 4.2.2). Information about the academic staff members involved in the implementation of the study program and their correspondence to the delivered courses is presented in Appendix 4.2.3.

**The academic staff involved** in the program use international cooperation and mobility programs. For example, in the academic year 2013/2014, Assistant Professor Olga Bogdanova went to the Brno University of Technology (Czech Republic) to give lectures and classes on "How to benefit from the EU internal market" and "Specific features of doing business in the global local markets".

In the academic year 2014/2015, Assistant Professor Olga Bogdanova went to Tallinn University of Technology (Estonia) to give lectures and workshops on the topic: How



to Benefit from the EU Internal Market, The EU Business Promotion Institutions and Programs.

In the academic year 2015/2016, Assistant Professor Olga Bogdanova gave a lecture course "How to benefit from the EU internal market" at Tallinn Technical University (Estonia), as well as guest lectures at the Brno Technical University during the Erasmus program exchange visit on "How to benefit from the EU internal" market "and" Specific features of doing business in the local markets of the world. "

In the academic year 2016/2017, five lecturers and administrative staff of the study program went to the following partner universities for exchange of experience in the Erasmus + program: Tallinn University of Technology (Estonia), Kühne Logistics University (Germany), Polytechnic University of Tirana (Albania), Frederick University (Cyprus).

In the academic year 2017/2018, Director of the study program, Associate Professor Inguna Jurgelane-Kaldava traveled to Kühne Logistics University (Germany), Heilbronn University and IDRAC Business School (France) in the framework of the Erasmus + program for further cooperation on international mobility of students and academic staff. promoting cooperation in science and the development of distance learning projects. International Projects Manager at SESTEL Chair, visited Heilbronn University (Germany) to exchange experience and promote inter-university mobility. Assistant professor Olga Bogdanova went to Tallinn University of Technology (Estonia) and Brno University of Technology (Czech Republic) to deliver lectures and classes on 3 different topics: the EU internal market "and" The EU business encouragement institutions and programs ". Associate Professor Velga Ozoliņa gave lectures at the Universidade Fernando Pessoa (Portugal) and gained new knowledge at Tampere University of Applied Science (Finland).

In the academic year 2018/2019, Director of the study program, Associate Professor Ingūna Jurgelāne-Kaldava went to the Hochschule für Technik und Wirtschaft Dresden (Germany) and the Lahti University of Applied Sciences (Finland) to promote further scientific cooperation and the development of international projects. Assistant professor Olga Bogdanova went to Euroakademy (Estonia) to conduct a lecture course: How to Benefit from the EU Internal Market.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The academic staff regularly engages in scientific research, publishing articles in various collections of papers, and giving presentations at local and international conferences. A list of publications and conferences for each lecturer can be found in Appendix 4.2.2 *Basic information about academic staff involved into implementation of study program*. In addition, academics are involved in both science and other local and international projects.

The results of research and projects are integrated into study courses and presented to students. For example, asoc.prof. I.Jurgelāne-Kaldava in the course “Statistics” and “International Business Planning”, asoc.prof. V.Ozoliņa, in course “Research work”, assist.prof. A.Auziņa-Emsiņa in course “Quantitative Methods for Economics”, etc.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

In order to ensure the interconnection of the study course content, the program study courses are audited each year, as well as various seminars where the lecturers involved in the implementation of the program introduce the course topics, teaching methods and discuss improvements to ensure higher content quality and current trends.

Analyzing the ratio of students to the number of lecturers involved in the study program at the time of submitting the self-evaluation report, on average program has 2.5 elected lecturers per student and 3 students per one industry specialist.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5. Statistics about students of study program.pdf	5.pielikums: Statistikas dati par studējošajiem studiju programmā.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6. Study program compliance to state education standard.pdf	6.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7. Compliance of the study program to the profession standard.pdf	7.pielikums: Studiju programmas atbilstība profesijas standartam.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8. Mapping of study courses of the study program Organization and Management of International Economic Relations.pdf	8.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana studiju kursu kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9. Study program "Organization and Management of International Economic Relations" plan.pdf	9.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana plāns.pdf
Descriptions of the study courses/ modules	Appendix 10. Description of the study courses modules International Relations Bachelor.zip	10.pielikums: Studiju kursu moduļu apraksti Starptautiskie sakari bakalaurs.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma professional Bachelor Organization and Management of International Economic Relations.pdf	Diploms profesionālais bakalaurs Starptautisko ekonomisko sakaru organizēšana un vadīšana.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Confirmation about possibility to continue studies.pdf	Apliecinājums par studiju turpināšanas iespējām.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study agreement sample.pdf	Studiju līguma paraugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Real Estate Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Real Estate Management</i>
Education classification code	<i>42581</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Ineta</i>
Surname of the study programme director	<i>Geipele</i>
E-mail of the study programme director	<i>Ineta.Geipele@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr.oec</i>
Phone of the study programme director	<i>67089033</i>
Goal of the study programme	<i>To provide higher professional education in real estate management in accordance with the adopted professional standards – real estate manager and real estate appraiser – and to ensure that the students acquire relevant theoretical knowledge and practical skills meeting the requirements of second-level professional higher education, which allows commencing professional activities as a real estate manager or real estate appraiser.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li>- <i>To provide students with extensive, professional, practical education, enabling them to adapt easily to the labor market, as well as scientific research;</i></li> <li>- <i>To provide students with theoretical and practical training appropriate to level 6 of EQI, enabling them to obtain the qualifications of real estate manager or real estate appraiser, as well as to continue education at Master study programs;</i></li> <li>- <i>To enable students to acquire qualifications in close connection with their future work, to provide opportunities for theoretical knowledge and skills that would allow graduates to take up practical activities after the program, to fulfil the duties of the real estate manager or real estate appraiser;</i></li> <li>- <i>To ensure acquiring modern global knowledge, developing economic thinking, promoting the analytical capacity of students, developing skills in addressing professional problems and challenges, developing projects that enable graduates to engage in solving economic problems;</i></li> <li>- <i>To develop team-building and cooperation skills with professionals from different spheres, to provide opportunities for developing foreign language skills that will help in cooperation with colleagues from other countries.</i></li> </ul>

Results of the study programme	<p><i>Upon successful completion of the study program, the graduates who have obtained the qualification of real estate manager are able:</i></p> <ul style="list-style-type: none"> <li><i>• to accomplish tasks related to residential houses, non-residential buildings and other property management pursuant to the EU classification "Building/Construction" according to the objectives of their use and technological and procedural requirements determined in technical documentation;</i></li> <li><i>• to analyze the planning and execution of the real estate management, reconstruction or renovation works, to demonstrate a profound knowledge of construction management, construction material technology and building operations;</i></li> <li><i>• to demonstrate their understanding of real estate management and the factors influencing it;</i></li> <li><i>• to select the most effective real estate management techniques, based on the forecasts concerning the development trends in real estate market, results of evaluation of technological processes, property management and administration engineering calculations;</i></li> <li><i>• to conduct scientific research and to develop new forms and methods of real estate management.</i></li> </ul> <p><i>Upon successful completion of the study program, the graduates who have obtained the qualification of real estate appraiser are able:</i></p> <ul style="list-style-type: none"> <li><i>• to use economic activity assessment methods for companies operating in the field of valuation of different property types;</i></li> <li><i>• to use real estate improvement methods in order to increase its value;</i></li> <li><i>• to use valuation, management, psychological, economic and other methods;</i></li> <li><i>• to ensure effective communication and interaction with the employees and customers of a commercial enterprise.</i></li> </ul>
Final examination upon the completion of the study programme	<i>Bachelor Thesis</i>

## Study programme forms

### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>General secondary or vocational secondary education or 1.level professional higher education in real estate management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor degree in real estate management</i>
Qualification to be obtained (in english)	<i>Real estate manager</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 5 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	5
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	160
Admission requirements (in English)	<i>General secondary or vocational secondary education or 1. level professional higher education in real estate management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor degree in real estate management</i>
Qualification to be obtained (in english)	<i>Real estate manager</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 4 years, 6 months - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	4
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	180
Admission requirements (in English)	<i>General secondary or vocational secondary education or 1.level professional higher education in real estate management</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor degree in real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 5 years, 6 months - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	5
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	180
Admission requirements (in English)	<i>general secondary or vocational secondary education or 1.level professional higher education in real estate management</i>

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor degree in real estate management</i>
Qualification to be obtained (in english)	<i>Real estate appraiser</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Construction Industry Expert Council 17.12.2019. at the meeting discussed the issue of the discrepancy between the educational classification of real estate exploitation and management programs and the international classification of education and training sectors

(International Standard Classification of Education: Fields of Education and Training, hereinafter ISCED - F 2013) and the Qualifications Framework for the Construction Industry.

The Council of Construction Experts requested the Ministry of Education to remedy the inconsistency of the International Real Estate Classification of Education and Training (ISCED - F 2013) with the Classification of Real Estate Operations and Management in Construction, At the meeting of the Tripartite Cooperation SubCouncil on Vocational Education and Employment (PINTSA), April 10, 2019, Protocol No. 2 to the approved Qualifications Framework for the Construction Industry. Classification of study programs in the field of real estate operation and management in the field of construction shall be classified by the Cabinet of Ministers Regulation No. 322 "Classification of Education in Latvia" curriculum code 581 vai 582 "Construction and civil engineering" in the thematic area "Architecture and Construction".

Due to changes related to profession standards, the professional qualification of a Real Estate Economist is excluded from the study program because it is no longer on the map developed by the Council of Construction Industry Experts. On December 16, 2019, RTU Senate meeting approved the exclusion of real estate economist qualification from the study program. Existing students will complete their studies in 2019/2020. However, some students switched to other options offered by the study program - real estate management and management or real estate valuation.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

In the analysis of the total number of students over the reporting period, it should be concluded that in academic year 2016/2017 there was the highest number of students in the program - 181 students, followed by a sharp decrease in the number of students, but there is already an increase in 2018.

The reasons can be uncertainty concerning sectoral policies, misinformation in the press that directly affects the sector, strict regulatory requirements, etc. There are higher tuition fees for full-time studies, and not all students can financially afford to pay for studies. One of the problems is



the limited number of study seats funded by the state budget at the study program, as this number of seats serves as advertising, which also leads to increased interest in the study seats the students have to pay for.

An analysis of the proportion of full- and part-time students who pay tuition fees over the years shows that the majority of these students are part-time students, i.e., in academic year 2013/2014 part-time students represented 68.29%, in the rest of the years 76.27%, 83.48%, 81.89%, 71.43% and 67.65%, respectively. Students choose part-time studies because thus they can combine studies with work. Full-time students have difficulty in finding full-time jobs in the real estate sector. There have been situations when full-time students switch from full-time studies to part-time studies after starting work. On average, this option is used by about 3% of the total number of full-time students per year.

When analysing the number of students at the study program by type of funding, i.e., study seats funded by the state budget and study seats the students pay tuition fees for, the conclusion is that each year the number of students who pay for their studies exceeds the number of students funded by the state budget.

In academic year 2013/2014, 18.89% of the total number of students was funded by the state budget, while 83.10% students paid tuition fees. In academic year 2014/2015, 22.87% of the total number of students was funded by the state budget, while 77.12% students paid tuition fees. In academic year 2015/2016, 30.30% of the total number of students was funded by the state budget, while 69.70% students paid tuition fees. Around the same limits, there were figures for academic year 2016/2017, when 29.83% of the total number of students was funded by the state budget, while 70.17% students paid tuition fees. In academic year 2017/2018, the ratio slightly changed. In academic year 2017/2018, 35.92% of the total number of students was funded by the state budget, while 64.08% students paid tuition fees. In academic year 2018/2019, 30.61% of the total number of students was funded by the state budget, while 69.38% students paid tuition fees.

There is part of students whose tuition fees are paid by employers because students themselves do not always have sufficient financial resources to pay for their studies. Due to the previous financial crisis in the country, part of the students and their guarantors are refused, due to their insolvency, the study and student credits.

The study program is carried out in Latvian, but every year one study course is carried out in English, for example, in academic year 2018/2019, the study course “Real Estate Economics” was delivered in English for 2 students of the course.

The study program is interdisciplinary, so, in order to acquire the knowledge required by the specific professional standards when graduating from the University, students are required to study courses related to their specialty.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The Institute of Civil Engineering and Real Estate Economics (ICEREE) of the Faculty of Engineering Economics and Management at Riga Technical University has close cooperation with professional associations that are members of international organizations (associations) FIABCI, CEPI and

TEGoVA. The goals and objectives of the education program are consistent with the rules put forward by these organizations for common professional requirements worldwide and in Europe. Since 2006, the Institute Civil Engineering and Real Estate Economics of the Faculty of Engineering Economics and Management at RTU has been a member of the International Real Estate Federation FIABCI.

Establishing a common platform for professional qualifications requirements in the EU, associations highlight the development of a uniform quality of education at Bachelor study programs across Europe in the field of real estate management.

The professional Bachelor study program focuses on the education and training of specialists in the field of real estate management with extensive competence in civil engineering issues for work at different companies and public administration institutions. The acquisition of skills and knowledge at the study program is ensured by the academic and research staff at the European level (experts from the EU and Latvia, in the fields of sustainable management and administration, the management of real estate transactions and the valuation of real estate), who are involved in the delivery of civil engineering solutions at the national and European level in their daily life.

The professional Bachelor study program “Real Estate Management” is unique in Latvia; there are also no analogue programs in the educational area of the European Union (EU), there are only a small number of similar programs; therefore, we believe that the competitiveness of the graduates of the program is very high.

The name of the study program, the degree to be obtained, the professional qualifications, the aims and tasks of the study program, as well as the learning outcomes to be achieved and the admission requirements are mutually agreed and relevant.

Measurements of the performance of tasks are the results of students’ studies, independently developed Bachelor Thesis with significant theoretical relevance and practical features, which include original research results, demonstrate the competence to acquire, select and analyze information independently and to use it for addressing problems in the field of real estate management.

The professional Bachelor degree in real estate management and the qualification of a real estate manager or real estate appraiser are awarded after passing the exams in theoretical study courses, fulfilling the internship tasks and presenting the Bachelor Thesis in front of the State Examination Commission.

The multisector approach applied to the implementation of the study program allows students to apply the knowledge gained in theoretical courses practically for the analysis and resolution of the current issues of particular companies and institutions, thus enabling students’ integration into the real working environment. The implementation of the study program focuses on the use of innovative technologies and their comprehensive assessment of sustainable economic development.

The results of the knowledge assessment of the students of the professional Bachelor study program “Real Estate Management” are discussed twice annually at the meeting of the ICEREE Council. The results are also compiled and evaluated by the program administration and they serve as a basis for further development of the study process. Reference on the quality of the Bachelor Theses and their public presentation is provided by the State Examination Commission, which submits a report to the study program administration regarding the public presentation of the Bachelor Theses.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The Institute of Civil Engineering and Real Estate Economics of the Faculty of Engineering Economics and Management of Riga Technical University tightly cooperates with professional associations – members of international organizations (associations) FIABCI, CEPI and TEGoVA. Aims and tasks of the study program are consistent with the rules laid down by these organizations for common professional requirements worldwide and in Europe. Already since 2006, the ICEREE of RTU is a member of FIABCI, the International Real Estate Federation.

Establishing a common platform for professional qualifications requirements in the EU, associations highlight the development of a uniform quality of education at Bachelor study programs across Europe in the field of real estate management.

The future vision of the professional Bachelor study program “Real Estate Management” is pursued taking into account the views and regional interests of students, employers, professional organizations and is in line with the mission and vision, goals and objectives of RTU.

A person working in the field of real estate development – economic valuation, management and maintenance, development, attracting investments, etc. – must be competent in all matters relating to administrative management, maintenance, usage, valuation, book-keeping and other accounting, compliance with legal norms, housing, taxation, legislation, commercial activity – performance of contractual obligations ensuring provision of utilities, the execution of lease, rental and insurance contracts, the physical management of property – the rehabilitation, restoration and preservation of real estate, apartment, house, land.

The study program “Real Estate Management” is a program open to cooperation, it takes into account the aims and tasks of higher education, as well as regional and national interests related to the needs of students and employers.

Each year in October, the study program administration submits a report to the boards of the professional associations involved regarding the study program, its study courses and their content. When required, supplements and changes in the content of the study courses in line with the industry and the labor market developments are introduced and evaluated by the industry professionals.

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Each member of the academic staff involved in the program implementation has a sufficient number of scientific publications on the subject of the course to be delivered.

Since the last accreditation, the content of the study program has been updated to be up to date, complementary, in line with the objectives of the program and ensuring that the learning outcomes are achieved, as well as meeting the needs of the construction sector and real estate management and the latest scientific trends and innovative practices.

In academic year 2014/2015, the content of the study program was developed in line with modern requirements and the requirements of occupational standards. In line with the new version of the state standard and the decision of the RTU Senate meeting of 23 March 2015 "On Unified Requirements to Study Programs at Riga Technical University", in cooperation with representatives of employers and program advisers, improvements in the structure of the study program were made, supplementing with new study courses, as well as introducing substantive changes to the study courses, in order to ensure their compliance with the modern requirements of the market and the occupational standards.

In the 2018/2019 academic year, the content of the study program has been updated in order to avoid duplication of study content and fragmentation of the study program.

The study program includes more extensive study courses that include information from previous study courses and are updated according to current trends, for example, based on the growing need to use BIM technologies and their solutions in real estate maintenance and management, the study program includes IBO744 Civil Engineering information systems and technologies in the amount of 4CP providing knowledge of construction information technologies, various software, etc.

The course IBO743 Practical Aspects of Construction and Fundamentals of Planning includes the information included in the courses - IBO455 Assessment of the Technical Condition of Buildings and IBO470 Assessment of Building Structures, IBO430 Practical Aspects of Construction Business

The content of the study program is developed in cooperation with professional organizations working in the field of real estate management, so that students acquire comprehensive knowledge in areas related to real estate management, use them in practice, and have the competence to independently analyze information, take decisions and show that they understand professional ethics.

The program provides students with professional expertise in their respective specialties by training comprehensive and professional specialists in the industry.

There are 2 semesters in each academic year, each term lasts for 20 weeks, 16 weeks of study and 4 weeks of session. Part-time studies at RTU are organized according to RTU Senate decisions and orders of the administration.

Riga Technical University is a derived public person founded by the state with autonomous self-government rights. Its development strategy defines the role of the University as a higher

education and research institution in society, its mission, vision, aims and tasks.

Recognizing the role of the University in the growth of the Baltic Sea region and the development of Latvia's future, the Development Strategy of RTU respects the priorities of the European Union, as well as the guidelines of the education and innovation policy planning documents at national and regional levels.

The program is in conformity with the main setting of the Strategy and Development Program 2014–2020 of Riga Technical University (RTU): to ensure the implementation of the key guidelines of the National Development Plan for 2014–2020. RTU positions itself as one of the cornerstones of Latvia's development that ensures education and training of specialists needed for the Latvian economy, as well as creation of new products and services, serving as a basis for sustainable growth in Latvia. The RTU Strategy includes key settings for the development of RTU for the period up to 2020, and sets out activities to be performed and the division of responsibilities for the performance of the outstanding objectives.

In order to achieve the vision of RTU to become the leading science and innovation university in the Baltic States by 2020, the Strategy sets out three objectives of the University: the qualitative study process, excellent research, sustainable innovation and commercialization activities. Specific performance indicators are defined for these purposes.

Successful implementation of the RTU Development Strategy is the basis for building a knowledge-based Latvian society and RTU is one of the most important partners for achieving the strategic objective set out in the Latvian National Development Plan – education and knowledge for economic growth and technological excellence.

The mission of RTU is to ensure the internationally competitive high-quality scientific research, higher education, technology transfer and innovations for Latvian economy and society.

The aim of the qualitative study process is internationally competitive, analytically and creatively thinking specialists in the construction and real estate management field educated and trained during prestigious, internationally recognized high-quality studies, who ensure development of the Latvian economy and who have the capacity for life-long education. The aim of excellent research is high-quality scientific research that meets the needs of the Latvian and world's economy, is extensively involved in international, national and sectoral research programs and is integrated into the study process. Sustainable valorization aims at an efficient environment of technology transfer and innovation development that promotes establishment of new technological companies and creation of products.

On the regional level in Latvia, to meet the requirements of the Energy Charter, opportunities for specialized qualification upgrade (lectures and seminars) are also set, with topics adapted to these requirements, which is manifested by the joint cooperation with the Ministry of Economics of the Republic of Latvia and the Ministry of Environmental Protection and Regional Development of the Republic of Latvia during the period from 2009 – 2014, within the framework of which lecturers are both representatives of the aforementioned ministries and foreign specialists.

Thus, for instance, in March–April 2014, visiting lectures were conducted for both students and the academic staff on topical issues of construction, renovation and reconstruction in the EU by Andrzej Czemplik from Wrocław University of Technology, Poland.

In October 2014, visiting lectures were conducted for both students and lecturers “Real Estate Development” and “Real Estate Life Cycle Evaluation” in English by Dr. Frank Riemenschneider (Fachhochschule Münster University of Applied Sciences, Germany), Dipl.-Ing. Martin Weischer (Münster University of Applied Sciences, Germany) and Dr.-Ing., Arq. Ruben A. Bancrofft H. (Guest

Professor at Fachhochschule Münster University of Applied Sciences, Germany, and Professor at Instituto Superior Politecnico Jose A. Echeverria La Habana, Cuba). However, on 5 February 2015, in cooperation with the Faculty of Civil Engineering, the seminar “Construction Cost Estimates and Prices at Tenders. Construction Law and Binding Regulations of the Cabinet” was organized.

On 23 October 2014, within the framework of the informative campaign “Live Warmer”, the seminar “Insurance in Construction and Renovation of Housing” was held at Riga Technical University (RTU). Not only students of the Master study program, but also parties involved in the implementation of renovation projects of apartment houses were invited to participate in the seminar.

On 12 February 2015, a visiting lecture of Ernestas Beržanskis, CEO of Ltd. Intelligent BIM Solutions (Lithuania) was held. The lecture was in English. The first topic of the lecture was BIM Concept, the second – BIM in Construction and the third – BIM Collaboration, Management.

In March 2016, in cooperation with the office of Baltic-Germany University of (DAAD), lectures were held for bachelor students and academic staff “Green Cities and Green Buildings: Building Lifecycle Management”, led by Professor Martin Weischer from University of Applied Science, Münster School of Architecture.

On 15 September 2015, in cooperation with the Latvian Association of Building Managers and Supervisors and Latvian Managers Guild, a seminar “Topicalities in the field of real estate and construction and their integration into higher education” was held, whereas in August the Latvian Association of Building Managers and Supervisors organized the annual seminar for professionals and students “Multi-apartment Housing Management and Housing Insurance in Germany, New Fire Safety Requirements at Multi-apartment Houses, Roof Repair Experience”.

In February 2016, in cooperation with the Faculty of Civil Engineering, the seminar “Construction Law and Binding Regulations of the Cabinet” was organized to assist students in development of their graduation papers.

The study process is organized in such a way that the subjects of training and research papers include issues pertaining to the industry. The study program is supplemented and updated in the course of its implementation on the basis of labor market studies and consultations with employers and practitioners.

In September 2017, in cooperation with students of the Department of Geomatics of the RTU Faculty of Civil Engineering, a visiting lecture “Near-field Spacecraft VLBI Tracking in the Context of Space Geodesy” was conducted by professor Leonids Gurvits from Delf University of Technology, the Netherlands.

Within the framework of the study course “Practical Aspects of Building Construction Business”, a 3-hour guest lecture “Practical Aspects of the Construction Business: Latvia and Lithuania” was delivered by Jurga Naimaviciene and Loreta Kanapeckiene from Vilnius Gediminas Technical University (Lithuania) in cooperation with Transparence Ltd.

Within the framework of the study course “Management of Ecology Systems”, a cycle of visiting lectures was held “Introduction to Management of Growth and Development. Models of Economic Growth and their Empirical Applications. Technological Change, Sources of Income and Growth Differences across Countries. Management Tools of Growth and Development. Key Empirical Issues in Management of Growth and Development” by the guest lecturer Olha Prokopenko from the University of Bielsko-Biala, Poland. Representatives of public limited liability company Rossijskaja Ocenka (Russia) and the accredited member of the American Society of Appraisers Vadim Gorbатов held a two-day course of lectures on the subject “Approaches to the Evaluation of Machinery,

Equipment and Vehicles: Cost, Comparative (Market) and Profitable”.

Guest lecturers from different Latvian companies also regularly participate in the study process. Industry professionals are attracted for the implementation of individual study courses, such as the practical part of the study course “Financial Accounting of the Property” was led by Olga Zadorozanaja, a certified tax advisor in the field of real estate from the Agency of Auditors Grafa Ltd., and in the study course “Commercial Accounts in the Management of Houses” Girts Zars, a certified agent of Latvian real estate business association LANIDA, member of the management board of 1Partneri Ltd., participated.

Ltd. Latio and RTU ICEREE organized the first Appraiser Summer School, held on 21–24 August 2018. The aim of the Appraiser Summer School was to attract young people to the profession of real estate appraiser, especially in Latvian regions. The summer school was represented by three students of the Bachelor study program, as well as by one graduate of the program.

Students have the option of visiting industry companies as part of training tours. In the autumn and spring semesters of academic year 2015/2016, students under the leadership of Associate Professor O. Caune and lecturer G. Birkmanis got acquainted with the activities of various management and construction companies.

Professor I. Geipele organized an educational trip to Rīgas namu parvaldnieks Ltd., during which students had an opportunity to get acquainted with the largest management and administration company in Latvia.

In December 2016, an educational trip was organized for the 1st-year students to Latvia’s largest waste processing enterprise “Getliņi EKO”. During the educational trip, students had a chance to get acquainted with the company, its operation and with the principles of waste storage. Students listened to a lecture on the company’s “Getliņi EKO” waste storage policy and sorting waste delivered by company representative Anda Zandberga. Students were also acquainted with greenhouses and their operating principles. Students had a chance to watch two short films about the history of the landfill and the operation of the garbage sorting plant.

Tradition continues to visit industry companies as part of educational trips. At the end of 2017, the students of the program organized an educational trip to the waste processing company “Getliņi EKO”.

In the autumn and spring semesters of academic year 2016/2017, students, under the guidance of Associate Professor L. Snidere, got acquainted with the activities of various management and construction companies, listened to lectures at the public limited liability company “Rīgas Silums”, attended the Math Modelling Laboratory for Environment and Technological Processes, the Energy Efficiency Centre in Jurmala.

Within the framework of the study course “Introduction to the Real Estate Industry”, meetings with industry professionals and representatives of professional associations were organized, enabling students to expand their knowledge on the career opportunities provided by the industry.

In March 2018 at the exposition “Best Construction of 2018”, students of the study program “Real Estate Management” got acquainted with the best innovative solutions in construction. In December 2017, students of the program participated in the open lecture “Historical and Economic Aspects of Heating in Construction and Real Estate Management” by Assistant Professor A. Kundziņa.

In academic year 2018/2019, students were given the opportunity to visit Z-Towers, where an educational trip took place under the leadership of Associate Professor K. Fedotova and Research Assistant Iveta Stāmure, during which the employees of the Management Unit introduced students

with the specific features of managing the facility.

In December 2018, Professor Ineta Geipele and Research Assistant Iveta Stāmure organized an educational trip to the buildings managed by CDzP Ltd., not only in Riga, but also outside it in Sigulda and Cesis. Students had an opportunity to get acquainted with the company's activities, different management objects; there was a possibility to communicate with the company's employees and the inhabitants of the buildings they viewed.

Students present their research at student conferences. In academic year 2015/2016, students participated in the 57th Student Scientific and Technical Conference of RTU, presenting the results of their research in the development of real estate management. In academic year 2016/2017, the students of the program participated in the 58th Student Scientific and Technical Conference of RTU with reports related to the selected field of study. In academic year 2017/2018, the tradition was also continued when the students of the program participated in the 59th Student Scientific and Technical Conference of RTU with reports related to the selected field of study and the study courses included therein. Students of the Bachelor study program had 15 reports on topics relevant to the industry. Two students of the study program, Āris Klešs and Vladislavs Siņicins, received the awards for the best reports. This tradition was continued in academic year 2018/2019. In academic year 2018/2019, students participated in the 60th Student Scientific and Technical Conference of RTU.

The mission of the professional Bachelor study program "Real Estate Management" is to ensure internationally competitive high quality scientific research, tertiary education, technology transfer and innovation for Latvian national economy and the society and to educate and train high-quality professionals demanded and competitive on the international labor market in the real estate sector.

RTU vision: Riga Technical University – a modern and prestigious University, internationally recognized as the leading university of science and innovation in the Baltic States – a cornerstone of the development of Latvia.

Vision for the development of the professional Bachelor study program "Real Estate Management": Opportunities for everyone to ensure an adequate quality of environmental life based on knowledge of sustainable use and assurance methods of energy and environmental resources and their management in the field of real estate and to ensure the training of quality Latvian and foreign specialists, regularly, together with state institutions addressing the problems related to the development of industrial engineering and management of real estate.

The RTU Development Strategy serves as the basis for the development of the RTU development program and for the drawing up of the annual strategic development project investment plan, the implementation of which is ensured by the budget of RTU and the associated funds – the financing of the Latvian State, European Union Structural Funds or other financial resources. The implementation of the investment plan ensures that the aims set out in the strategy are attained. The RTU Senate approves the arrangements for monitoring progress in the implementation of the development strategy and making additions or amendments. Monitoring the development strategy and a result-oriented management system motivates departments and employees to achieve the tasks set out in the development strategy.

The future vision of the professional Bachelor study program "Real Estate Management" is pursued taking into account views of students, employers, professional organizations and regional interests and is in line with the RTU mission and vision, aims and tasks.

The study program "Real Estate Management" is a program open for cooperation, which takes into account the aims and tasks of higher education, as well as regional and national interests related to the needs of students and employers.



The development of RTU is regularly planned, including a perspective financial program, guaranteeing the achievement of the aims included in the program and possible risks, including demographic one. There is a development program, together with a concrete action plan aimed at ensuring sustainability, both for RTU as a whole and for the relevant course of study.

Employers' representatives regularly take part in the work of the Graduation Paper Defense Committee to evaluate students' knowledge in the study program. By participating in Thesis Defense Commissions, industry representatives are able to make suggestions on student research topics that are relevant to the labor market and are also taken into consideration in other academic years.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The professional Bachelor study program "Real Estate Management" is implemented through lectures, practical classes, trips to enterprises, as well as through independent studies, by learning the basics of real estate management and construction, and the relationship between this sector and other sectors of the national economy.

All study courses included in the study program are related to its aims and tasks, as well as the learning outcomes. Upon completion of the study courses, students must obtain the knowledge, skills and competences set by the occupational standards.

When analyzing the aims of the study program, the link between the learning outcomes and the information included in the study courses, the learning outcomes, the set aims and other indicators and their compliance with Cabinet Regulation No. 512 adopted on 26 August 2014 "Regulations on the State Standard of Second Level Professional Higher Education", it can be concluded that:

- The strategic aim of the study program is developed in such a way as to ensure professional studies relevant to the economic, cultural, national defense and security, as well as social needs, based on theoretical grounds of the branch sciences, complying with the occupational standards and applicable in practice;
- The content of the study program ensures the aggregate of knowledge, skills and competences in conformity with level 6 of the framework specified in the Latvian education classification regarding knowledge, skills and competence. The main parts of the program are study courses; internship beyond the educational institution (further in the text - the internship); state examination, the constituent part of which is the development and public presentation of the Bachelor Thesis;
- The tasks of the study program are set in such a way as to educate students by ensuring acquisition of the professional qualifications of the fifth level of real estate manager or real estate appraiser (6 EQF) and to promote their competitiveness in the changing socio-economic conditions and on the international labor market.

The tasks of the study program are as follows:

- to provide students with extensive, professional, practical education, enabling them to adapt

easily to the labor market, as well as scientific research;

- to provide students with theoretical and practical training appropriate to the fifth level of professional qualifications, enabling them to obtain the qualifications of real estate manager or real estate appraiser, as well as to continue their education at Master study programs;
- to enable students to acquire qualifications in close connection with their future work, to provide opportunities for acquiring theoretical knowledge and skills that would allow graduates to take up practical activities after the program, to fulfil the duties of real estate manager or real estate appraiser;
- to ensure acquiring modern global knowledge, developing economic and professional thinking, promoting the analytical capacity of students, developing skills in addressing professional challenges, developing projects that enable graduates to engage in solving economic problems;
- to develop team-building and cooperation skills with professionals from different spheres, to provide opportunities for developing foreign language skills that will help in cooperation with colleagues from other countries.

The content and number of tests and examinations are in compliance with the set curriculum of the respective study course and the requirements to the professional qualification skills and knowledge. All terms and conditions for acquiring credit points are described in the curriculum of each study course.

The requirements of occupational standards (Real Estate Manager, Real Estate Appraiser), following their assessment by the Expert Board of the Construction Industry are included in the structure of qualifications for the construction industry and will improve and increase the liability of workers in the real estate sector to customers – owners of buildings and structures and apartment owners. Consequently, additional changes and additions to the descriptions of study courses will be made.

The study system is designed in accordance with the Education Law, the Law on Higher Education Institutions and the Vocational Education Law, so as to maximize the achievement of the aims set out in the study programs and to facilitate the performance of tasks. The study system at higher education institutions is regulated internally by the documents regulating student-university relations and by the regulatory documents of the study process and organization, which are available at the program administration and at the RTU website.

Compliance of the professional Bachelor study program “Real Estate Management” with the state professional higher education standard.

The professional Bachelor study program “Real Estate Management” was established in accordance with Cabinet Regulation No. 512 of 26 August 2014 “Regulations on the State Standard of Second Level Professional Higher Education” and with the decision taken by the RTU Senate “On Unified Requirements to Study Programs at Riga Technical University” as of 23 March 2015.

The volume of the program – the volume of the study program and its structural division are in accordance with the requirements of the state education standard. The volume of the program and study courses is expressed in credit points.

Structure of the Study Program for Obtaining the Qualification of the Real Estate Manager

Components of the program	Volume CP	% of total volume
A. Compulsory study courses	- 89 KP	55
General education study course	11 KP	7
Field specific theoretical basic study courses and IT study	36 KP	22
Field specific professional study courses	42 KP	26
B. Compulsory elective study courses	- 27 KP	17
Field specific study courses	19 KP	12
humanities / social and management study courses	2KP	1
languages	6 KP	4
C. Free choice subjects	- 6 KP	4
D. practice	- 26 KP	16
E. Bachelor thesis	- 12 KP	8
Kopā:	160 KP	100

Structure of the Study Program for Obtaining the Qualification of the Real Estate Appraiser

Components of the program	Volume CP	% of total volume
A. Compulsory study courses	- 89 KP	50
General education study course	11 KP	6
Field specific theoretical basic study courses and IT study	36 KP	20
Field specific professional study courses	42 KP	24
B. Compulsory elective study courses	- 47 KP	26
Field specific study courses	39 KP	22
humanities / social and management study courses	2KP	1
languages	6 KP	3
C. Free choice subjects	- 6 KP	3
D. practice	- 26 KP	14
E. Bachelor thesis	- 12 KP	7
Kopā:	180 KP	100

- Compliance with professional standards of the bachelor study program “Real Estate Management”

In the course of the study program, the qualifications to be awarded are included in ESCO (European Skills, Competences, Qualifications and Occupations) catalogue, which is a multilingual classification of skills, competences, qualifications and professions in Europe.

On April 15, 2009 the profession standard of the Real Estate Manager (PS 0438) was approved by the Ministry of Education and Science PINTSA Protocol No. 4. The content of the Bachelor's program is designed in accordance with these standards and fulfilling their requirements.

The occupational standard of the real estate appraiser was approved with Decision No 29 of Ministry of Education and Science on 14 November 2006. The occupational standard of the real estate manager was approved with Minutes No 4 of Tripartite Cooperation Sub-council of Professional Education and Employment (PINTSA), Ministry of Education and Science on 15 April 2009. The content of the Bachelor study program is formed in accordance with these standards, meeting their requirements.

In June 2014, the occupational standard of the real estate appraiser was re-approved. Therefore, from 1 September 2014, work was launched on the development of the study program “Real Estate Management” in line with the new requirements of the occupational standard.

Development trends in the real estate and construction sector worldwide and in Latvia have identified the need to foresee in each study course and internship program the relevant changes in their improvement and development, in line with the requirements of the real estate market and

the development of the construction sector.

At the beginning of their studies, students receive short information material containing the most important information about the organization and practical implementation of studies.

In order to ensure the achievement of the aims and tasks set out in the program, the first and second years of study include compulsory study courses, general education courses and joint sectoral studies, which form the basis for the acquisition of expertise and practical skills during subsequent studies.

The content of the Bachelor study program is formed in accordance with these three standards and meeting their requirements. The content of the compulsory part of the study program and that of the compulsory elective study courses comply with the requirements of occupational standards.

In the course of the development of the occupational standard of the real estate appraiser, the harmonization of views between future and existing employers and representatives of Latvia's largest higher education institutions was realized, as the standard working group for the development of the occupation of the real estate appraiser consisted of representatives from associations – Latvian Association of Property Appraisers, Latvian Real Estate Transactions and Brokers Association –, companies and other representatives.

In the course of the development of the occupational standard of real estate manager, there was the harmonization of views between future and existing employers and representatives of Latvia's largest higher education institutions because the working group for the development of the occupation of the real estate manager consisted of representatives from associations – Association of House Administrators and Managers of Latvia, the Latvian Builders Association, Apartment Owners Advisory Centre –, representatives of the Municipal Building Management Department of Riga City Council, companies and others.

The nominal duration of studies in the specialization of real estate management in full-time studies is 4 years, part-time – 5 years. Total volume of the study program is 160 CP.

The nominal duration of studies in the field of real estate appraisal in full-time studies is 4.5 years, in part-time studies – 5.5 years. Total volume of the study program is 180 CP.

In line with the new version of the state standard and the decision of the RTU Senate meeting of 23 March 2015 “On Unified Requirements to Study Programs at Riga Technical University”, in cooperation with representatives of employers and program advisers, improvements in the structure of the study program were made, supplementing with new study courses, as well as introducing substantive changes to the study courses, in order to ensure their compliance with the modern requirements of the market and the occupational standards.

In order to meet the objectives of Latvia's economic policy, the new labor market needs education and employment policy that ensures the full use of human resources, thereby creating a productive ground for economic growth.

The content of studies is represented by each study course program. The content of the study program “Real Estate Management” is reviewed annually for updating the content of the study course, taking into account the sectoral and economic changes envisaged also by the curriculum of each study course.

Upon the completion of the study program “Real Estate Management”, students acquire the professional Bachelor degree in real estate management and a fifth-level professional qualification (level 6 of EQF) of real estate manager or real estate appraiser.

In academic year 2017/2018, mapping was performed with the analysis of the interaction between

the aims set in the descriptions of all courses and the learning outcomes to be achieved with the requirements of the occupational standards and the aims of the study program. The analysis of this matrix allowed crystallizing the issues in the study course descriptions that needed to be improved. When presenting the developed matrix or mapping, recommendations were received allowing for improvement of the study courses.

The academic staff whose study courses are included in the study plans for the autumn or spring semester of a given academic year in all full and part-time studies of the highest level study program place calendar plans of their study courses in the ORTUS e-environment, where they include topics for all lectures, practical works, practical classes, etc., as well as conditions for successful assessment for the respective study course, describing all requirements to be fulfilled by a student in order to obtain a successful assessment for the course acquisition (for example, information on the planned tests and tasks for independent work, criteria for admittance to the examination and other information on the requirements that may affect the assessment of a student's work).

When developing and implementing study courses, in order to ensure the interaction between the knowledge, competences and skills acquired by graduates, a particular emphasis is given to the following:

- presentation of current problems in the content of the study program (at the level of lectures and practical classes), including analysis of topical problems of collaborative enterprises of the study program and provision of solutions within the limits of the specific content of the course;
- use of modern teaching methods (solutions for specialized data programs, use of common solutions algorithm, solution-oriented methods, etc.);
- the integrity of the study course and the study program, i.e., by developing a cross-curricular learning approach (e.g., a cross-curricular learning approach by using concept mapping and mind mapping, etc.);
- improvement of study methods in cooperation with foreign experts (for example, University of Lucerne) for distance learning by using ORTUS – e-study environment of Riga Technical University (RTU).

Individual approach to students is provided:

- study materials are provided in the form of both handouts and electronic materials and presentations;
- if necessary, the lecturer plans individual tutorials and consultations with the student, as each lecturer has a concrete time for tutorials with which students are presented at the first lecture, as well as consultation times are available at [buni.rtu.lv](http://buni.rtu.lv) and [ievf.rtu.lv](http://ievf.rtu.lv);
- the individual approach is followed in the selection of the teaching methods to be applied, analyzing individual topics and difficulties during lectures, practical works, laboratory works and seminars;
- when choosing the subject of the Bachelor Thesis, the student's expectations and the specific nature of the work in the selected specialization are taken into account;
- electronic communication takes place intensively and regularly through electronic mail, ORTUS environment and the website.

Implementing the study program, its aim is consistent with level 6 of the European Qualifications Framework (EQF) and with level 5 of professional qualifications of the Latvian Qualifications Framework and is achieved in the process of its implementation.

Bilateral feedback is regularly provided during the implementation of the program. Students receive

regular feedback from lecturers on submitted test, study course, exam, study projects, reports, practice reports and presentations. At the end of the course, academic staff can conduct a survey on student satisfaction with the content of the course, their expectations, as well as receive proposals.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study program is implemented in two variants, full-time, intramural form and part-time extramural form in Latvian, uniformly complying with the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The course descriptions of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points do not depend on the implementation variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements, set in the program and in each course, in comparison with full-time studies, part-time studies have a longer program acquisition time and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in different types and forms of studies, the study courses differ only in the number of full-time (or contact hours) and independent work hours and the course teaching methodology or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role.

For example, study courses Real Estate Marketing and Project Management in Civil Construction Business and Real Estate Management and Administration, etc., using the principles of metacognition, students plan their activities according to their own set learning goals and independently manage their learning process, at the same time assessing themselves and their achievements, as well as analyzing what they have gained in the study course and the learning process in general. The study course Management of Ecology uses situation analysis, analyzing the existing processes and problems, as well as developing current issues in the implementation of environmental protection requirements in the field of real estate.

Democracy and dialogue with the students, their active involvement in study process improvement are among the main principles practiced at the study programs implemented by RTU FEEM. Students take part in the study process improvement either directly, i.e. expressing their suggestions to the instructor delivering a particular study course, the heads of the chairs, or the head of the program, or with the help of student self-government, whose representatives participate as members in the work of FEEM Council, RTU Senate and RTU Senate Committees, as well as the work of RTU Academic Assembly.

The administration of the study program considers that relations between FEEM and students are characterized with mutual confidence, respect and integrity, which support understanding, correct perception and develops ability to apply the gained knowledge.

To provide for compliance with the principle of democracy, once a semester, students evaluate the work of professors, assistant professors, lecturers and visiting lecturers by filling in an anonymous questionnaire in ORTUS system. RTU Study Department regularly organizes the polling of portal user and different kinds of surveys in ORTUS system, including two evaluations of the academic personnel performance during the academic year. Thus, students can provide their feedback on the quality of study courses and professional performance of the academic personnel. Survey questionnaires consist of questions concerning availability of study literature for each study course, evaluation criteria, working culture and quality, observation of student rights during the studies, time allocated for independent studies, and academic discipline. In the final part of the questionnaire students may express their suggestions and recommendation for improvement of the study course and the quality of the instructor's work. The questionnaires are completed anonymously, so that the provided answers could not influence instructor's attitude towards a concrete student or student group to ensure achievement of the aim – to receive objective assessment form the students. Nevertheless, it should be noted that not all students use this opportunity.

FEEM student self-government plays a major role in promoting cooperation among the students, academic staff and program administration; it actively participates in all processes mentioned above and conducts annual assessment of the academic staff. In order to honor the best instructors, the annual FEEM prize of honor has been established, which is a student organized event to evaluate the performance of the academic staff.

The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods as group work, case studies, seminars, discussions, field trips to industry companies and real estate objects in order to acquire and reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations are used.

In addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours.

By organizing study tours and study visits, the study program is linked to the specifics of the field, students acquire not only theoretical knowledge, but are able to relate it to everyday situations in

real estate management companies, analyze problems and argue their opinion.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform, is used for the implementation of the program. The students of the study program as well as the academic staff and visiting lecturers regularly use it. The portal provides the students with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student's knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, use interactive whiteboard and other audio / video and technical aids.

To achieve positive learning outcomes in the course the studies, students are familiarized with study aims, tasks and learning outcomes, as well as with assessment criteria both when commencing studies in the 1<sup>st</sup> study year and at the beginning of each study course. Students are timely informed about the assessment criteria of exams, tests and other assessment tests according to RTU Study Regulation.

Every study course description includes the summary break-down of total assessment.

The contents and volume of examinations comply with the curriculum of the study courses and the requirements towards professional qualification skills and knowledge. All conditions for credit point acquisition are stipulated in the syllabus of each study course.

The main principles of assessment of education results are as follows:

- the principle of summarizing positive assessments;
- the principle of compulsory assessment;
- the principle of clarity and transparency of assessment criteria;
- the principle of variability of assessment forms;
- the principle of testing availability.

The quality of the obtainable education is controlled by using polling of graduates, employers and students of the Master professional study program "Real Estate Management", results of examinations and tests, by assessing the performed study papers and projects, internship reports and Bachelor Theses.

The main forms of assessing acquisition of the program are an examination and test that have to be passed upon completion of each study course. The form of assessment is stipulated in the study program.

Assessment of the learning outcomes takes place in accordance with the Regulations on Assessment of Learning Outcomes ([https://www.rtu.lv/writable/public\\_files/RTU\\_1\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_1_studiju_rezultatu_vertesanas_nolikums.pdf) [in latvian]) and Regulations on Final Examinations at Riga Technical University ([https://www.rtu.lv/writable/public\\_files/RTU\\_nolikums\\_par\\_noslguma\\_prbaudjumiem\\_.pdf](https://www.rtu.lv/writable/public_files/RTU_nolikums_par_noslguma_prbaudjumiem_.pdf)) [in latvian]. Teaching methods, structure of study courses and evaluation methods are selected by the academic staff responsible for the study course according to the specific nature of the course and the program, as well as the needs of students.

Training courses and seminars on the latest teaching and pedagogical methods are organized for the academic staff, professional advancement through attendance of various courses both at



internal Faculty, RTU and international events is also promoted. RTU Centre for Academic Excellence organizes professional advancement events for academic personnel at the University level.

The specific assessment criteria for each study course must be presented by the academic staff to students at the first lecture. They are also published in the ORTUS e-study environment of the course.

Bachelor Thesis envisages a practical study in real estate management with a project part in the relevant specialization – Real Estate Management or Real Estate Appraisal, in which a specific project with all the necessary calculations is carried out, and which may be related to the location of the designing internship place.

Students in the development of Bachelor Thesis are able to demonstrate the basic and specialized knowledge characteristic of the fields of real estate management and necessary for the professions of the real estate manager and real estate appraiser as well as critical understanding of the knowledge, and part of the knowledge corresponds to the level of the highest achievements of the field. Students are able to demonstrate understanding of the most important concepts and relationships in real estate.

In regard to the Bachelor Thesis, the following aspects are evaluated: technical economic processes on the real estate market, the factors affecting it, the objectives of the company working in the field of real estate development and brokerage (transactions), the tasks to be addressed for their implementation, the assessment of real estate and the activities to be performed with it, the problems of managing and maintaining real estate. The choice of the most efficient projects for investment in real estate is based on predetermined forecasts for real estate market developments, valuation results, management and maintenance of economic calculations in different types of property.

The Bachelor Thesis is publicly presented, for the evaluation of which the State Examination Commission is appointed by the Rector of RTU, consisting of representatives of the Latvian Real Estate Association, the Latvian Association of Property Appraisers and the Association of Management and Administration of Latvian Housing. Bachelor Theses are evaluated by reviewers approved by the Dean of the Faculty of Engineering Economics and Management.

The State Examination Commission of the professional Bachelor study program implemented by the ICEREE notes the high quality and efficiency of Bachelor Theses, both in improving the energy efficiency of buildings and in managing and administering buildings, as well as pointing out the possible ways for reducing associated costs, etc.

The principles of student-centered education are taken into account in the implementation of the whole study process.

#### *1. Students' involvement in the study process and content improvement*

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

#### *2. Learning outcomes*

The assessment of the study courses of the program and the number of credit points are related to the learning outcomes and the students are informed about these learning outcomes. The lecturers

associate the results of the course with the results of the study program, as well as argue the necessity of acquiring the information of this course in order to acquire the profession of house manager.

Exam and credit test are the main forms of assessment of program outcomes, which should be taken at the end of each study course. The form of assessment is specified in the description of the certain study course. The form of examination is defined in the study program. Assessment of learning outcomes is performed according to the Regulation on the Assessment of Learning Outcomes ([https://www.rtu.lv/writable/public\\_files/RTU\\_1\\_studiju\\_rezultatu\\_vertesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_1_studiju_rezultatu_vertesanas_nolikums.pdf) [in latvian]) and the Regulation on Final Examinations at Riga Technical University ([https://www.rtu.lv/writable/public\\_files/RTU\\_nolikums\\_par\\_noslguma\\_prbaudjumiem.pdf](https://www.rtu.lv/writable/public_files/RTU_nolikums_par_noslguma_prbaudjumiem.pdf) [in latvian]).

### *3. Mobility*

Mobility resources are used in the study program to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; A 3-hour lecture "Practical Aspects of Building Construction Business: Latvia and Lithuania" was conducted by Jurga Naimaviciene and Loreta Kanapeckiene from Vilnius Gediminas Technical University (Lithuania) in cooperation with the Latvian company "Transparency" Ltd within the study course "Practical Aspects of Building Construction Business".

Within the study course "Management of Ecology", the cycle of lectures "Introduction to management of growth and development. Models of economic growth and their empirical applications. Technological change, sources of income and growth differences across countries. Tools of management of growth and development. Key empirical issues in management of growth and development" was conducted by the visiting lecturer Olha Prokopenko from University of Bielsko-Biala (Poland), thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers.

### *4. Social dimension*

The study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey, which indicates that almost 95% of students work through the studies. Similarly, full-time students have the opportunity to switch to part-time study if necessary, to combine study and work. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

### *5. Teaching and learning methods*

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed, group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other. Study tours and guest lectures are also held regularly. Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype, Whatsapp etc.

### *6. Learning environment*

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory and research Laboratory for Building

Entrepreneurship and Real Estate with various databases during their research process.

### *7. Development of competences of the academic staff*

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Pedagogical methods, the structure of the study courses and assessment methods are chosen by the responsible instructors in accordance with the curriculum of the study course and program specifics, as well as the needs of students.

Training courses and seminars on the latest teaching and pedagogical methods are organized for the academic staff, professional advancement through attendance of various courses both at internal Faculty, RTU and international events is also promoted. RTU Centre for Academic Excellence organizes professional advancement events for academic personnel at the University level.

Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods. In the framework of the international ERASMUS + project Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020,, the lecturers are involved in the development of new study courses, sharing experience in the use of study methods, materials and programs in European universities.

### *8. Extra-curricular activities*

The program management supports the student self-government and encourages students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning.

Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. The student scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses are published.

Students have the opportunity to participate in the annual RTU International Scientific Conference.

Student-focused education envisions active involvement of students in lecture activities applying various teaching methods (discussions, practical tasks), which in their turn support equality among students and members of academic staff. Such processes are practiced by the instructors within their study courses, for example, Professor J. Vanags organizes workshops within the study courses "National Economy and Financial Market", "Real Estate Economics", where each student presents their topic, taking on the role of the instructor. Other instructors actively practice team work during practical classes, which helps in developing student team responsibility for the performed activities.

Student learning outcome assessment results are discussed twice a year at the Department of Building Entrepreneurship and Real Estate Economics and Management of the Institute of Building Entrepreneurship and Real Estate Economics, they are also summarized and assessed by the program administration; they also provide the framework for further improvement of the study

process. Results are also discussed at FEEM Council meetings.

Academic achievements of students of the study program are different. The average assessment of academic achievements of full-time students in the 1<sup>st</sup> year of studies varies in a wide range. This stems from differing level of student background knowledge.

Academic achievements of students of the study program are different. The average assessment of academic achievements of full-time students in the 1st year of studies varies in a wide range. This stems from differing level of student background knowledge.

The analysis shows that, compared to previous years, the results of studies have soared, as well as students' attitude to learning has improved. However, it has to be admitted that it is due to the changes in the working style of academic staff, the use of innovative approaches in the specialized study courses, and the cooperation of the academic staff with the industry leading professionals.

It should be concluded that, compared to previous years, students' attitude to studies has improved by using more innovative dual approaches to the implementation of study courses. The first year is based on general and field-specific study courses. The situation continues to improve in terms of success in the coming years of study.

RTU has created the Golden Fund that includes the most prominent and capable RTU graduates, assessing them both by academic achievements and by public activities.

In academic year 2013/2014, one students was included in the Golden Fund, and in academic year 2014/2015 – one students.

In academic year 2016/2017, two students were included in the Golden Fund.

In academic year 2017/2018, three students were included in the Golden Fund.

In academic year 2018/2019, six students were included in the Golden Fund.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship outside the educational institution is an integral part of the professional programs that students have to complete in accordance with Cabinet Regulation, RTU Senate Decision No.467 "On the Structure of the Second Level Professional Study Programs" as of 29 April 2002, and RTU Senate Resolution No. 626 "The New Edition of the Internship Management Procedure at Riga Technical University" as of 28 January 2019.

The internship is conducted in accordance with the Regulation, the general requirements of which have been elaborated by RTU Senate. The Regulation is available at RTU homepage and ORTUS system.

It is stipulated in the Senate Resolution amended in 2019 on the Internship Management Procedure at RTU that an internship supervisor from the organizational unit helps students to find an internship place. Should any additional assistance be necessary, it is possible to apply to the Career Support and Service Centre, where a career consultant and a project manager help students in

finding an internship place and outreach, as well as promote development of career management skills with the help of different activities that can ensure acquisition of positive results during the internship.

Once a year the Career Support and Service Centre organizes RTU Career Day, when students also have an opportunity to meet in person representatives of companies and discuss future prospects.

An additional resource that has been used since 2015 is the home page, where companies are invited to allocate vacant jobs relevant for RTU students (<https://ekarjera.rtu.lv/>). Students can login with their university user name and follow the up-to-date practices in their field and later monitor future job opportunities.

Additional support in development of practical skills is provided by RTU Development Fund (<https://www.rtu.lv/lv/attistibasfonds>). Throughout the year, several hundred practical skill training competitions are organized in cooperation with companies, where students can acquire practical skills.

Internship is undertaken according to the Agreement on Internship, which RTU signs with an employer about an internship and a student. The Agreement on Internship stipulates the aim, tasks and the plan of the internship, procedure of internship achievement assessment, as well as responsibilities and liabilities of the parties. Defining the aims and tasks, the introduction to the management structure and principles of work of an appropriate internship company is added to the internship curriculum. Determination of internship aims and tasks, as well as internship assessment is done involving the representatives of the organization or company that signed the agreement on internship. Committees for public presentation of internship reports are established.

Close cooperation is maintained with companies, banks, organizations, institutions employing graduates of RTU Faculty of Engineering Economics and Management, who help to provide internship places for students.

Two periods of internship are planned in the study program. The volume and planning of the internship is as follows:

D.	INTERNSHIP	26 CP
1.	Specialized Practical Placement	16 CP
2.	Designing Practical Placement	10 CP

Student internship places are provided by commercial companies that are members of professional associations.

The main aim of internship is to provide and to support integration of student theoretical knowledge and practical work in order to assess the opportunities to use the knowledge acquired at the University in practice, as well as enhancement and development of professional skills and competences. During the internship, students get familiar with real estate management aspects in management, transactions management and appraisal.

During the internship, students develop internship reports according to the requirements of the internship program, as well as keep an internship diary. The internship report is drawn up during the internship. It should be submitted to the internship supervisor at the final stage of internship and publicly presented to the Internship Committee established at the Department of Building Entrepreneurship and Real Estate Economics and Management (BEREEM Department) within the terms specified in the semester plan.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

When graduating from the professional Bachelor study program, the graduate should have theoretical knowledge and skills, pursue a professional, innovative and research activity, and be able to formulate and describe information, challenges and solutions analytically.

Within the framework of the Bachelor Thesis, students analyze, evaluate, research, propose solutions, develop projects, etc.

At the end of the program, students should develop the Bachelor Thesis dedicated to current challenges in real estate management, innovative digital solutions in management, real estate development, real estate appraisal processes.

The Bachelor Thesis is publicly presented in front of the State Examination Commission. The Commission acts in accordance with the regulation approved by the RTU Senate; it comprises representatives of the labor market in accordance with the requirements. Representatives of the field with high professional qualifications participate in the work of the State Examination Commission.

The themes of Bachelor Theses are in line with the latest developments in real estate management. Representatives of the field with high professional qualifications participate in the work of the State Examination Commission. The study program is supplemented and updated in the course of its implementation on the basis of labor market research and consultation with employers and practitioners. The recommendations of graduates, students and academic staff play an important role in improving the study process. Changes are mainly focused on changing the learning style to self-paced learning and integrating information technologies into real estate management decision-making. The study process is organized in such a way that the subjects of students' study and research projects include real estate management issues.

Students acquire research skills by working regularly with literature and the Internet resources to successfully develop different study projects, internship reports and Master Theses. This way scientific research of students is also promoted, work with international scientific databases available at the RTU library, with electronic access from the ORTUS environment, as well as the required information sources and materials for Bachelor Theses are already summarized during internship in situ at companies.

Following public presentation of Bachelor Theses, the State Examination Commission provides a report on the quality of the presented works, their topicality on the labor market and the average assessment of students. In the course of the public presentation of Bachelor Theses, the respective Minutes are completed, where the questions and the obtained assessment are reflected.

The topics of Bachelor Theses of students are topical, relevant to the objectives of the program, ensuring achievement of the learning outcomes and correspond to the needs of the real estate sector for the purposes of managing, developing and brokering real estate, and to the needs of the field of real estate appraisal and scientific trends.

In 2019, for example, there were the following themes of the Bachelor Theses:

- Real estate managers:

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Impact of Real Estate Tax on Household Investment in Housing Maintenance and Renovation

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Project for the Development of the Courtyard of Multi-Apartment Dwellings

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Assessment of the Management and Administration of Private Forest Property

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Economic Justification for the Implementation of Measures to Improve Energy Efficiency of Multi-Apartment Dwellings

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Interaction between the Duties and Rights of the Manager and Apartment Owners in Real Estate Management Processes

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Socio-Economic Justification for the Need for a New Residential Rental Law

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Justification for the Determination of the Amount of Forced Land Rental of the Split Property of Multi-Apartment Houses

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Accounting of the Consumption of Resources Necessary for the Use of Residential Dwellings, Methods for Calculating Payments and the Possibilities for their Development

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Assessment of the Problems of Forced Shared Property and Possible Solutions in the Management of Multi-Apartment Houses

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Options for Improving the Efficiency of Company Property Management

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Assessment of the Operations of Real Estate Unitary and Shared Management Systems

---

Planning and Organization of Measures for the Renovation of Multi-Apartment Dwellings

---

Development of Water Consumption Accounting in Real Estate Management

---

Market Shortcomings in the Management of Residential Houses in Latvia and Solutions to Reduce them

---

---

Assessment of the Implementation and Management of the Terraced House Development Project

---

Characteristics and Trends of Commercial Real Estate in Latvia

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Characteristics of the Management and Administration of Cultural Heritage Today

- Real estate appraisers:

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Characteristic Features of the Valuation of Detached Buildings and Row Houses

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Role of International Assessment Standards in Improving Housing Assessment

---

Residential Property Valuation Problems and Solutions for Mortgage Lending

---

Characteristic Features of the Valuation of Apartment Property in New Projects and Serial Buildings

The analysis shows that the themes of Bachelor Theses are closely related to topical issues in the real estate sector.

Evaluations of students' final theses

		Final work evaluation (from 10-4 points)						
		10	9	8	7	6	5	4
2013/2014.	Full time	2	4	9	8	3		
	Part time	3	3	3	1			
2014/2015.	Full time	3	9	2	1	1	1	
	Part time	1	3	2				
2015/2016.	Full time	2		1	2	1		
	Part time	2	6	2				
2016/2017.	Full time	1	2	6	1			
	Part time	4	4	5				
2017/2018.	Full time	6	3	1	1			
	Part time		3	5	1			
2018/2019.	Full time	9	6	3	2			
	Part time	3	1	2				

Analyzing the results of the defense of bachelor's theses, it must be concluded that in the 2013/2014 academic year the average grade is 8.02, in the 2014/2015 academic year - 8.6. In its turn, in the study year 2015/2016 there is a decrease of the average assessment - 8.18.

Starting with the 2016/2017 academic year, there is an increase in the average grade, respectively in the 2016/2017 academic year it was 8.65, in 2017/2018. in the study year - 8.8, but in 2018/2019. study year - 9.11. It should be noted that 2018/2019. In 2006, most of the graduates had developed very high - quality works.

## 2.6. Analysis and assessment of the outcomes of the surveys conducted among the



**students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

At the end of each semester, RTU Study Department in ORTUS system runs student polling concerning the quality of studies. In addition, discussions and surveys are held among employers and former graduates. Polling results are discussed at the meetings of the ICEREE Council, as well as at the meetings of FEEM Council in case of elections for academic positions.

The procedure for the consideration of student complaints has been elaborated. The grounds for the complaint are evaluated, for many years lecture and practical class observations have been practiced, during which leading members of academic personnel and institute administration observe lectures and draw up an observation minutes. Such lecture observations include observation of the way an instructor involves students in the lectures, how they interact with the audience, and how they employ various materials and opportunities of technical hardware. After lecture observations, possibilities of work improvement are discussed with the instructor.

To receive student feedback about the study process and improve the quality of electronic learning aids posted by the instructors, RTU has implemented student polling system, not later than once per semester conducting regular student surveys and the quality of study curriculum and academic activities of the staff. Questionnaires are anonymous and are not personally linked to any certain student, the obtained results are essential for improvement of the quality of the study process; that is why students can express their views, having conscientiously filled in survey questionnaires.

Depending on the study course, the number of students participating in ORTUS student surveys differs, so the acquired data are analyzed very carefully.

One of the ways to express one's positive or negative view is through a Bilateral application designed by RTU Student Parliament, which allows expressing one's view, having remained anonymous. The application form is available at the Faculty student self-governments, at the Student Parliament or on [www.rtusp.lv](http://www.rtusp.lv). [in latvian].

In academic year 2013/2014, out of 36 graduates of the study program, 20 graduates filled out the questionnaires. The survey results are summarized in the table below.

**Student Survey Results in Academic Year 2013/2014, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	70%	10%	10%	0	5%	5%
Satisfied with the acquired theoretical knowledge	65%	24%	11%	0	0	0

Satisfied with the acquired practical skills	60%	17%	23%	0	0	0
Satisfied with the lecture rooms used for studies	85%	15%	0	0	0	0
The majority of academic personnel posted materials in the e-learning environment	80%	20%	0	0	0	0

In academic year 2014/2015, out of 23 graduates of the study program, 19 graduates filled out the questionnaires. The survey results are summarized in the table below.

**Student Survey Results in Academic Year 2014/2015, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	80%	10%	0	0	5%	5%
Satisfied with the acquired theoretical knowledge	67%	22%	11%	0	0	0
Satisfied with the acquired practical skills	46%	20%	23%	11%	0	0
Satisfied with the lecture rooms used for studies	80%	15%	5%	0	0	0

The majority of academic personnel posted materials in the e-learning environment	80%	20%	0	0	0	0
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In academic year 2015/2016, out of 16 graduates of the study program, the questionnaires were filled by 10 graduates. The survey results are summarized in the table below.

**Student Survey Results in Academic Year 2015/2016, %**

	Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
Satisfied with the chosen study program	80%	20%	0	0	0	0
Satisfied with the acquired theoretical knowledge	64%	22%	12%	0	0	0
Satisfied with the acquired practical skills	66%	20%	14%	0	0	0
Satisfied with the lecture rooms used for studies	80%	15%	5%	0	0	0
The majority of academic personnel posted materials in the e-learning environment	85%	15%	0	0	0	0

Graduates have mentioned that practical skills should be further developed and that the study process should also be more intensive, they would like more face-to-face classes and educational trips, as well as practical classes at companies. Students have mentioned the following suggestions for the development of the program:

- more practical classes, need for real-life analysis;
- to review the content of the study courses, as in some courses the provided information is

overlapped;

- to attract more people, who daily perform the duties of real estate; manager at one of the companies in Latvia or outside it;
- to organize educational trips to companies more frequently in order to give an idea of theoretical and practical knowledge to be acquired in the coming years of study.

Each year and in different aspects the evaluation of the program, the study process, the acquired knowledge and practical skills on the part of graduates show the necessity to review the content of the study program and its implementation, which is also performed regularly. The administration uses all results obtained from the surveys for improving the study process.

In 2017, out of 21 graduates of the study program, 21 graduates filled out the questionnaires. The survey results are summarized in the table below.

**Student Survey Results in Academic Year 2016/2017, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	66.67%	23.81%	4.76%	0	4.76%	0
2.	Satisfied with the acquired theoretical knowledge	47.62%	42.86%	4.76%	4.76%	0	0
3.	Satisfied with the acquired practical skills	47.62%	23.81%	28.6%		0	0
4.	Satisfied with the lecture rooms used for studies	61.90%	28.57%	4.76%	4.76%	0	0
5.	The majority of academic personnel posted materials in the e- learning environment	42.86%	28.57%	19%	4.76%	4.76%	0

Overall, students evaluate the theoretical knowledge and practical skills acquired during the studies positively. However, there are students that are not satisfied with the studies. During the enhanced evaluation, it was revealed that some students were not interested in the acquired qualification or education in the professional field.

Students have mentioned the following suggestions for the development of the program:

- to review the content of study courses as in some courses the provided information is

overlapped;

- more practice can be recommended;
- more study tours to businesses and different facilities for acquiring best practices;
- are not satisfied with some courses included in the program, such as statistics, computer science (basic course), foreign languages, psychology, civil defense, business communication;
- to reduce for graduates the duration of studies at Master program.

The evaluation of the program, the study process, the acquired knowledge and practical skills from the point of view of graduates shows, on a yearly basis, the need to review the content of the study program and its implementation, which is regularly done. All results obtained in the surveys are used by the program administration in the development of the study process.

#### Student Survey Results in Academic Year 2017/2018, %

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	56%	33%	5.5%	5.5%	0	0
2.	Satisfied with the acquired theoretical knowledge	28%	33.5%	33%	5.5%	0	0
3.	Satisfied with the acquired practical skills	22%	45%	22%	5.5%	5.5%	0
4.	Satisfied with the lecture rooms used for studies	50%	50%	0	0	0	0
5.	The majority of academic personnel posted materials in the e-learning environment	52%	33%	0	16%	0	0

The results of the student survey show that there are problems in study courses with the duplication of topics covered in other study courses. Therefore, in methodological seminars, the descriptions and content of study courses are regularly reviewed.

Taking into account the results of student and graduate surveys, the fragmentation of study courses has been eliminated by creating study courses with a larger amount of credit points, for example, the content of previous study courses "Real Estate Economics", "National Economy and Financial Market" has been revised and a new study course "Basics of Real Estate economics" with 6CP.

In accordance with the recommendations of the industry (employers), a new study course

“Construction Information Systems and Technologies” has been included, in which students will learn the BIM technology software and programs required in the real estate industry.

Study tours to companies and various real estate objects are organized on the recommendations of students and with the consent of employers. 2019./21020. The autumn semester of the study year was organized for students Study trip to Peikko factory in Lithuania.

According to the recommendations, the number of practical classes and tasks that students have to go to specific companies and objects has been increased.

In general, students are positive in evaluating their theoretical and practical skills. However, there are also students who are not satisfied with their studies. On the basis of an in-depth assessment of the student survey results, it was concluded that there are some students who are not interested in the qualifications obtained or in the professional field, as part of them changed their professional field during the studies. Part of the students pointed out that they were satisfied with the chosen study program because they wanted to acquire knowledge of the management and administration processes and were satisfied with the knowledge acquired and they decided to continue the studies at the Master study program.

Graduates have pointed out that practical skills should definitely be more developed and that the study process should also be more intensive; they would like more face-to-face classes and educational trips, as well as practical classes at companies. Students have mentioned the following suggestions for the development of the program:

- to review the content of study courses as in some courses the provided information is overlapped;
- more practice can be recommended;
- are not satisfied with some courses included in the program, such as economics, construction law and construction regulations because these courses are too extensive, mathematics, foreign languages, statistics.
- more optional courses related to the field could be provided.

In academic year 2018/2019, out of 26 graduates, 20 graduates filled out questionnaires.

#### **Student Survey Results in Academic Year 2018/2019, %**

		Strongly agree (5)	Partially agree (4)	Neutral (3)	Partially disagree (2)	Strongly disagree (1)	No opinion (6)
1.	Satisfied with the chosen study program	60%	34%	3%	3%	0	0
2.	Satisfied with the acquired theoretical knowledge	50%	23%	23%	4%	0	0
3.	Satisfied with the acquired practical skills	50%	40%	4%	3%	3%	0

4.	Satisfied with the lecture rooms used for studies	60%	40%	0	0	0	0
5.	The majority of academic personnel posted materials in the e-learning environment	55%	33%	0	12%	0	0

In academic year 2018/2019, graduates also indicated in their questionnaires that the study program placed too much emphasis on study courses related to economics and that there was a need for a higher number of practical classes in specialized courses of the field of studies.

In general, students are positive in evaluating their theoretical and practical skills acquired during the studies. However, there are also students who are not satisfied with their studies. As a result of an in-depth assessment, it was concluded that these students were not interested in the qualifications obtained or in the professional field.

The evaluation of the program, the study process, the acquired knowledge and practical skills from the point of view of graduates shows, every year in a different way, the need to review the content and implementation of the study program, which are regularly done. All results obtained in the surveys are used by the program administration in the development of the study process.

The administration of the study program follows not only student achievements at the University, but also student activities outside RTU.

In academic year 2017/2018, the recommendations of graduates of previous years and of this year for continuing their studies at the Master program were taken into account, by reducing the duration and volume of Master studies just for graduates of the Bachelor study program.

During the implementation of the study program “Real Estate Management”, feedback to employers, students and graduates on its quality is regularly provided. The quality of studies is evaluated according to the results of the student surveys obtained, evaluation in tests and examinations, methodological work reports.

The ICEREE representative was included in FIABCI Scholarship Foundation of autumn 2014 a 4th year student of the Bachelor study program “Real Estate Management”. This student continues his studies at the professional Master study program “Civil Construction and Real Estate Management”.

A 3rd-year student of the professional Bachelor study program “Real Estate Management” from Nordic Hardwood Factory (FasādePro Ltd.) participated with his colleagues in the “Export and Innovation Award 2017” contest organized by the Latvian Investment and Development Agency (LIAA), the final ceremony of which took place on 7 December 2017 at Riga Palace, where all the finalists and participants were welcomed by the President of Latvia Raimonds Vejonis. The company participated with its new, innovative product “curved line panels” in the category “The Most Innovative Product”.

So is the student mentioned above with his colleagues, participated in the national stand represented by the Latvian Investment and Development Agency at the international exhibition “The Big 5 – International Building & Construction Show”, which took place in Dubai, the United Arab Emirates, on 26–29 November 2017.

The “The Big 5” exhibition has been under way since 1982 and is the largest construction exhibition

in the Middle East. It is visited by more than 60,000 industry professionals, and around 3,000 companies annually participate with stalls in the exhibition.

A fourth-year student of the Bachelor study program, in the delegation of Latvian Real Estate Association (LANĪDA), participated in the International Real Estate Forum in Moscow (*Международный бизнес-форум Недвижимости 2017*). Besides, Deivids Cjukša participated in the competition “Real Estate Agent 2017” organized by LANĪDA, where he received a promotional award and a gift from the ICEREE, RTU.

In 2019, as part of the “Living Warmer” project, Ēriks Eglītis, state secretary of the Ministry of Economics, presented gratitude to the Chairman of the Board of “Ventspils nekustamie īpašumi” and to Valdis Lesiņš, the graduate of the professional Bachelor study program “Real Estate Management” at the ICEREE of FEEM, RTU. During the previous planning period, 42 projects to improve energy efficiency of buildings were implemented under the management of Valdis Lesiņš, and 13 multi-apartment buildings in Ventspils, at different stages of project implementation, during this planning period. Valdis Lesiņš is an enthusiastic advocate of the energy efficiency idea; he has made a significant contribution to promoting energy efficiency in the city of Ventspils, contributing to citizens’ awareness of energy efficiency.

During the implementation of the study program “Real Estate Management”, feedback is regularly provided on its quality by employers, students and graduates. Quality of the studies is assessed according to the obtained results of polling of students, grades at tests and examinations and methodological work reports.

In the study program “Real Estate Management”, relations among students, lecturers and other employees are developed on the principles of cooperation, respect and responsibility. The principles of democracy are observed in the management of the program and in the adoption of various decisions. Students are involved in the decision-making process.

In the event of conflict situations, students usually apply with their questions to the academic staff, through record-keeping and administration of the study program. Up to now, all complains have been resolved on the level of discussions. Students may also talk to or submit complaints to the Dean of the Faculty or the Deputy Dean for Academic Affairs. Conflict prevention, problem solution and coordination mechanisms have been established in the study program

Democratic principles are observed in the management of the study program “Real Estate Management”; the relationship between administration, academic staff and students is clearly defined.

Representatives of students participate also in the work of the ICEREE Council.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Each year in various respects, the evaluation of the program, the study process, the acquired knowledge and practical skills from the viewpoint of graduates shows the need to review the content and implementation of the study program, which is regularly done.

In academic year 2013/2014, the program student, took advantage of the opportunities provided by the Erasmus program, to have internship at a real estate valuation company in Cyprus.

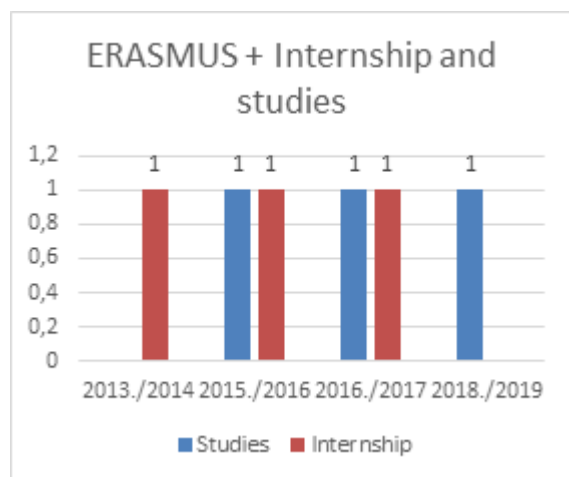


Within the framework of the Erasmus+ program, student undertook internship in Germany, and one student studied at Neapolis University Paphos in Cyprus.

In academic year 2016/2017, the recommendations of the graduates of previous years and this year for continuing studies at Master study program were taken into account, by reducing the duration and volume of Master studies to the graduates of this Bachelor study program.

In 2017./2018 study year within the framework of the Erasmus+ program, student studied at Neapolis University Paphos (Cyprus), while the third-year student undertook internship in Germany.

In academic year 2018/2019, the student of the study program studied at Rotterdam University of Applied Sciences in the Netherlands.



On average, 1-2 students use mobility opportunities per year. Most of them are full-time students, as part-time students work in the sector and cannot afford to use mobility abroad for a longer period of time.

When asked about what kept them from using this option, different answers were received. The most popular answer was that the funding allocated was not enough to stay abroad for so long.

The second most popular answer was - can not be combined with work after studies, because they work in parallel with studies.

The third answer that dominated the student survey was I could not because of family circumstances.

The study courses acquired during the mobility are all recognized in accordance with the requirements of RTU and the mobility program.

Even before the student leaves for foreign universities, the study courses are coordinated according to the content of the study program. This coordination is performed by the director of the study program - all the students who used mobility opportunities, prior to going to the selected university abroad, coordinated the study courses to be acknowledged with the study program administration and completed the Erasmus form.

Usually students choose study courses that are relevant to their chosen profession. In a situation when a student has chosen a study course that is not in the study program, it is recognized as an optional study course.

In the spring semester of academic year 2018/2019, 1st- and 2nd-year students were enrolled in the Erasmus+ project "Pub-Wood" (Sustainable Public Buildings Designed and Constructed in Wood); KA2-Cooperation of Innovation and the Exchange of Good Practices; KA203 - Strategic

Partnerships for Higher Education, No. 2018-1-LT01-KA203-046963 (1 September 2018–31 August 2020)), implementing a study on “Wood, Wooden Buildings: Problems and Solutions”. The five best studies were presented to students and academic staff of the universities involved in the project at Coventry University (the UK). At Coventry University, for 10 days, the five best students in international teams with members from Britain, Denmark, Finland and Lithuania worked on various projects, developing their knowledge and acquiring new competences.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

RTU financing from the general state budget is formed by the basic financing of studies in accordance with the list of the study programs and the number of students, which covers utility fees, taxes, infrastructure maintenance costs (including data input in the Register of students and graduates), purchase of inventories and equipment, and remuneration, as well as financing of research activities.

The number of seats is approved after negotiations with the Ministry of Education and Science. Basic financing of studies from the state budget is awarded to full-time studies. The amount of basic financing of studies is defined based on the number of state budget-funded seats at RTU, as well as the basic costs of a seat set by the state and thematic education field study cost coefficients.

RTU financing for state budget-funded seats in the appropriate academic year is allocated according to the procedure set in RTU Senate Resolution “On the Methodology for Allocation and Application of Basic Budget, Performance-Based Funding and Tuition Fees to RTU Units” in the appropriate academic year. This methodology is reviewed and approved in a new edition every year, taking into account the necessary changes.

RTU has decentralized budgeting and each organizational unit plans its own budget. Broadly speaking, budget is an income and expenditure plan for a certain period of time, work, activity or function. RTU incomes and expenditures are managed either according to the principles approved by the Senate or as determined by the authorized Vice-Rector for Finance.

According to the Methodology, financing to organizational units is distributed either for a financial or budget year or immediately after financing has been received. Financial or budget year for RTU organizational units lasts from October to September of the next year, calculation and allocation of financing is made for this period of time:

- Subsidy or basic financing (state budget-funded seats) is allocated as a monthly limit – an

organizational unit is monthly granted 1/12 of the financing calculated for a year;

- Fee-based student financing (tuition fees, including the payment for the settlement of academic arrears) is allocated twice a year (in October and in April) as a monthly limit – an organizational unit is monthly granted 1/6 of the calculated semester financing;
- Performance-based financing (research support funding) is granted as a monthly limit, an organizational unit is monthly granted 1/12 of the financing calculated for a year;
- Research base financing (research support funding) is granted as a monthly limit – an organizational unit is monthly granted 1/12 of the financing calculated for a year.

Analyzing the general procedures of financing study programs at RTU it may be noticed that in case of basic budget and financing received from local fee-paying students for a long time have been defined according to the basic principles defined by the state. In the process of definition of the volume of financing both thematic education field study cost coefficients and study cost coefficient values according to the study program level are taken into account, as well as the number of students at the study program and at the respective study courses therein.

As mentioned above, using thematic education field study cost coefficients it is possible to define the volume of financing necessary for a certain study program and study course. RTU Senate has ruled that further thematic education field study cost coefficients will be applied individually to each study course within the study program, thus providing even more relevant volume of financing for implementation of study courses within the study program. To integrate this system, an expert committee was established by the Order of the Vice-Rector for Academic Affairs, which defined the thematic field for each study course.

Actual costs of the study program “Real Estate Management” are as follows:

	Subsidy to the program, EUR	Tuition fee by local students, EUR	Tuition fee by foreign students, EUR	Total funding for the program, EUR	Cost of state budget funded seat, EUR
2013/2014	20595.00	75749.00	0.00	96344.00	2280.00
2014/2015	40404.35	73385.40	0.00	113789.75	2279.62
2015/2016	57886.22	66201.40	0.00	124087.62	2279.62
2016/2017	61608.76	67290.86	0.00	128899.62	2279.62
2017/2018	58320.33	83656.52	0.00	141976.85	2382.59
2018/2019	60764.28	73574.64	0.00	134338.92	2494.05

Financial resources of the study program are sufficient for its implementation. The usage of the resources is controlled regularly both on the part of the administration and on the part of the RTU Office of Vice-Rector for Finance.

The study process is fully provided with the latest learning aids, which students can borrow from RTU Central Library either using study book circulation tickets or using the aids throughout the whole period of studies. RTU students and academic personnel have access to a large and modern RTU Scientific Library (Kipsala, 5 Paula Valdena Street), where they can use both all kinds of educational literature, electronic subscription databases, as well as short-term trial databases.

Working hours of the reading rooms of the library for RTU students work on 24/7 basis, because round-the-clock reading rooms of RTU Scientific Library are the place, where students can study late at night, outside the Library or Faculty working hours.

To intensify the study process, students have constant access to the joint RTU study support system "ORTUS". For the moment "ORTUS" provides students with:

1. Lecture handouts and presentations;
2. Automatic video records of classes;
3. Study process related regulatory documents and amendments thereto;
4. Remote authorization of students in commercial electronic information sources (Databases);
5. Electronic processing of tests and home works;
6. Information on student academic performance;
7. Information on student finance, with an option of electronic invoicing;
8. Online check in/check out for the study courses in the following semester.

To supplement the range of sources of information and to update the accessible scope of publications in the library, the study program administration has purchased some new publications. The table below summarizes the information about the spent amounts and the number of library copies.

Year	Program	EUR	Number of copies
2018	Real Estate Management	500.51	8
2017	Real Estate Management	969.94	13
2016	Real Estate Management	1258.98	4
2015	Real Estate Management	1218.88	9
2014	Real Estate Management	1437.44	7
2013	Real Estate Management	1362.18	37

The following publications have been acquired for insuring the library resources of the study program:

1. Auziņš, Armands. Zemes izmantošanas novērtēšana un pārvaldība: zinātniska monogrāfija [Land Use Appraisal and Management: scientific monograph]/ Armands Auziņš; reviewers: Velta Paršova, Marija Burinskiene, Siim Maasikamäe; [scientific editor Ineta Geipele; responsible for the issue Anita Vēciņa; editor Inga Skuja]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Publishing House, 2016. 270 p.
2. Freibergs, Jānis. Nekustamo īpašumu vērtēšanas teorija un prakse: mācību grāmata [Theory and Practice of Real Estate Valuation: Textbook] / Jānis Freibergs, Vilis Žuromskis. Riga: RaKa, 2013. 347 p.
3. Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā : zinātniskā monogrāfija [Management System of Real Estate Market Development in Latvia: scientific monograph] / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis

- Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible for the issue Natālija Čina; editor Lilita Vīksna ; author of the cover Sanda Geipele]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p.
4. Judrupa, Ilze. Latvijas reģionu konkurētspējas novērtēšana: zinātniskā monogrāfija / [Assessment of the Competitiveness of Latvian Regions: scientific monograph] Ilze Judrupa, Maija Šēnfelde; reviewers: Dr.oec. Andrejs Čirjevskis, Dr.oec. Roberts Škapars, Dr.oec. Alise Vītola; scientific editor Dr.oec. Ineta Geipele; literary editor Inga Skuja; cover design: Baiba Lazdiņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of the Territorial Development, Management and Urban Economics. Riga: RTU Press, 2018. 150 p.
  5. Kadastrs: no viduslaiku nodevu saraksta līdz modernai informācijas sistēmai un daudzfunkcionālam kadastram [Cadaster: From a Medieval Fee List to a Modern Information System and a Multifunctional Cadaster] / [authors: Maija Bērziņa ... [et al]]. Riga: State Land Service, 2013. 311 p.
  6. Kopā un atsevišķi: daudzdzīvokļu namu arhitektūra Latvijas ekonomiskajā, politiskajā un sociālajā ainavā [Together and Separately: the Architecture of Multi-apartment Buildings in Latvia's Economic, Political and Social Landscape] / edited by Matīss Groskaufmanis and Evelīna Ozola; drawings: Ludo Groen, Matīss Groskaufmanis, Evelīna Ozola; translations: Vilis Kasims, Jūle Mare Rozīte; photos: Reinis Hofmanis; comics: Sander Ettema. Riga: FOLD in cooperation with the New Theatre Institute of Latvia, [2019] 239 p.
  7. Nekustamais īpašums Latvijā: 1991-2012 [Real Estate in Latvia: 1991-2012] / [Aivars Kļavis ... [et al]]. Riga: Latio, 2013. 384 p.
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The resource base and facilities of the study program are provided by RTU and FEEM facilities and infrastructure. FEEM facilities and, consequently, the resources of the study field are regularly updated. The lecture rooms used for the needs of the study program are equipped with all necessary audio and video hardware. There is necessary equipment for video lectures, computer classes, copying machines, etc. The academic personnel and administration draw great attention to effective modes of the lecture room usage and enhancement of the study program quality. Advanced IT technologies are used during the classes: academic staff use electronic teaching tools for visual presentation of lecture curricula (PowerPoint presentations, audio-video materials, video materials, etc.), video lectures are being gradually integrated, also e-learning platform is used. Computer classes are used not only in solution of practical tasks, which allow students to acquire the latest IT technologies, but also in promotion of research through application of different data bases.

The ICEREE has been implementing the study program at FEEM, it has established the research Laboratory for Building Entrepreneurship and Real Estate, where students can use laboratory equipment and software within different study courses, for example, in the framework of Assessment of the technical state of buildings and structures, Engineering communications of buildings or Energy efficiency in the management of buildings to use laboratory equipment and computer programs.

The following units can be listed as the examples:

- ICEREE System dynamics simulation unit: Vensim Simulation Academic DSS, Vensim Simulation Professional, Microsoft SQL 2008;
- ICEREE Situation modelling unit: General algebraic Modelling System, Windows Server 2008 R2, server, power unit;
- ICEREE Environmental, territorial, infrastructure development modelling unit: video communication system, presentation equipment, Map Info (software), JS Latvija (software);
- ICEREE Real estate management and development unit: Realty Ware Professional (software), NamZinis (software), NamuBoss, Darbu Boss (software), AutoCad (software);
- ICEREE in cooperation with the Department of Geomatics of the Institute of Mechanical Engineering of FCE: drone - FlyTop Unmanned Aerial Vehicle FLYNOVEX with control unit, six accumulating batteries, accumulating battery charging device, high resolution photo camera and thermocamera "FLIR VUE PRO";
- ICEREE Building microclimate, energy efficiency monitoring and modelling unit: software, extension module, air flow and temperature sensor with display, apartment comfort (ceiling/floor) and outdoor temperature sensor, humidity sensors, humidity sensors with

display, Co2 and temperature sensors, pressure sensor with display, installation materials, recovery ventilation set, internet routers, installation materials, thermography cameras, installation materials, camera software, noise (sound level) meter (portable), air quality meter, oxygen meter, air flow meter, light meter (luxmeter), pressure sensor, air flow rate meter, conductivity meter, water tester, oxygen concentration meter, PH meter, humidity meter, soil moisture meter, digital temperature sensor, hygrometer;

- ICEREE Meteorological Center with software – an aerial with the software.

Students can use services provided by the RTU Library (<http://www.zb.rtu.lv/>). They can also use a methodological room of the Library, where they can get familiar with the latest periodicals, statistical materials, books, conference materials on the most pressing issues in the sector. The FEEM has a free access library, where a student can take a publication of interest and bring it back later.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

The study program implementation takes place with involvement of Doctors of science and lecturers or highly qualified professionals with relevant work experience, whose characteristics are provided in their CV. The list of members of academic staff and their CVs are enclosed herewith.

The members of academic staff meet the requirements for the study course delivery. It may be attested both by their characteristics and CVs, as well as by their scientific and methodological research, participation in international, RTU and FEEM scientific and methodological conferences.

#### **Characteristics of the Academic Staff**

<b>No.</b>	<b>Parameters</b>	<b>Number</b>	<b>Ratio, %</b>
1.	Position:		
	Professors	5	13.89
	Associate Professors	12	33.33
	Assistant Professors	7	19.44



	Assistant Professors at professional programs	2	5,56
	Guest lecturers	2	5.56
	Lecturers	3	8.33
	Assistants	3	8.33
	Researchers	2	5.56
	<b>Total:</b>	<b>36</b>	<b>100</b>
2.	Scientific degrees:		
	Doctors of Science s	25	69.44
	Masters	10	27.78
	Other (dipl.ing.)	1	2.78
	<b>Total:</b>	<b>36</b>	<b>100</b>
3.	By age:		
	under 30	3	8.33
	31 - 40	5	13.89
	41 - 50	15	41.67
	51 - 60	5	13.89
	Over 60	8	22.22
	<b>Total:</b>	<b>36</b>	<b>100</b>

Overall, the data demonstrate that qualification of the academic personnel is sufficient to ensure the quality of the study courses. In the reporting period, the number of academic personnel, who obtained PhD degree in the mentioned period, has increased, thus, for example, the study program employs Assoc. Prof. A.Auziņš, G.Actiņa, S.Geipele, Assistant Professors L.Kauskale, K.Fedotova, etc. 69.44% of academic personnel working at the study program hold a PhD degree. A number of lecturers work in parallel exactly in real estate sector, thus their hands-on skills and competence are transferred to the study program.

An analysis of the age structure of the academic staff involved in the program implementation shows that the academic staff aged over 60 has decreased, i.e. currently composing 22.22% of the total number. The academic staff aged 41-50 has increased, i.e. 41.67% of the total number of academic staff. Administration of the study program currently works at attracting Doctoral students for cooperation. At present, their number is 5, representing 13.89% of the total number of academic staff.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

Qualifications of academic staff involved in the implementation of the study program comply with the conditions for the implementation of the study program and the requirements of regulatory enactments.

The implementation of the study program involves RTU staff elected to academic positions, guest lecturers and Doctoral candidates.

The implementation of the study program also involves the staff working on different scientific projects, so that the knowledge acquired in the projects can be used in the implementation of the study program, with a view to improving the content of study courses.

In general, the data (see Section 4.1) show the qualifications of the academic staff and the ability to ensure the quality of the courses. During the reporting period, the number of academic staff who have obtained the Doctoral degree during the reporting period has increased, for example, Associate Professors A.Auziņš, G.Actiņa, S.Geipele and T. Štaube, Assistant Professors L.Kauškale, K.Fedotova, and others participate in the implementation of the study program. Academic staff members also work in the real estate sector at the same time, thus transferring the skills and competences of practical work to the study program.

At the moment, two guest assistant professors are involved in the implementation of the study program. These academic staff members work at other higher education institutions, but deliver certain courses in the form of exchange within the study program, thereby ensuring mutual cooperation not only within RTU but also with other universities.

Professional qualification development is enhanced by participation of academic staff in conferences and seminars, attending different courses, participating in other organizations, carrying out practical work as experts and consultants.

Each year academic staff members actively participate in methodological seminars organized by RTU and other universities.

The academic staff members involved in the implementation of the study program:

Ineta Geipele, Dr.oec., RTU Professor, Dipl.ing., acquired and developed her professional competence and values at different universities in Germany, Austria, Denmark and England, which she currently integrates in the studies, teaching methodology and scientific research. Research interests of Professor Ineta Geipele lie in such fields as the issues of sustainable development in the real estate market, real estate management, building construction, effective land use management, institutional economics and social management both at the national and international level. Professor Ineta Geipele is an expert of social sciences at the Latvian Council of Science in such fields as Economics and Entrepreneurship; Social and Economic Geography and other social sciences, including generic fields of social sciences. Professor I. Geipele is the author and co-author of over 300 scientific publications, including 10 books, at the moment she is heading Projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood).

ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963; 01.09.2018 – 31.08.2020. In parallel to her main activities she works as a real estate consultant at “Ādažu namsaimnieks” Ltd., and at the Guild of Latvian House Managers. Qualification of Professor Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Real Estate Management”, “Introduction to the Real Estate Industry” and “Bachelor Thesis”.

Jānis Vanags, Dr.oec., Dipl.ing., RTU Professor. Professor’s scientific and academic interests lie in the Latvian national economy, engineering economics, construction and house management and real estate management and real estate evaluation, economics of real estate, microeconomic and macroeconomic processes, sustainable development. Professor J. Vanags is the author of numerous scientific publications, including 5 books, and the co-author of the monograph “Financing Models for Housing Fund Renovation in Latvia” and “Socio-Economic Aspects of the Interaction of Urban and Regional Development”. In parallel to his work at the University, he works as a consultant for “Consalis” Ltd. Qualification of Professor Vanags meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Fundamentals of Real Estate Economics” and “Construction Pricing”, “Real Estate Business (study project)”.

Tatjana Tambovceva, Dr.oec, Dipl.ing., RTU Professor, an expert of social sciences in the field of Economics and Entrepreneurship at the Latvian Council of Science. Her research and academic interests lie in green management, management of building construction projects, sustainable development. Professor Tamboceva regularly advances her professional qualifications by taking part in ERASMUS mobility program. Professor Tambovceva is the author of numerous scientific publications, co-author of books and monographs. Qualification of Professor Tambovceva meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study course “Project Management of the Civil Construction Business and Real Estate Management”.

Armands Auziņš, Dr.oec., Associate Professor, has developed several textbooks, over 20 international scientific articles in the field of land management. A.Auziņš is a member of the European Academy of Land Use and Development (EALD). His research interests relate to land management, land planning and surveying, as well as planning for the development of territories. He regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. Currently, he is working at the project “A values-Led Planning Approach for Sustainable Land Use and Development. Activity 1.1.1.2 “Post-doctoral Research Aid” of the specific aid objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and Employment” (No. 1.1.1.2/VIAA/1/16/161). The qualification of Assoc. Professor A. Auziņš complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses “Territorial and Detailed Planning, its Development Strategies”, “Cadaster and Cadastral Value of Property”.

Sanda Geipele, Dr.oec., Associate Professor, an expert of social sciences in the fields of Economics and Entrepreneurship at the Latvian Council of Science. She acquired her work experience both working in private companies and public institutions, which includes real estate tax management at the Municipal Revenue Department of Riga City Council. Her scientific interests lie in development of real estate market sustainability, resource management, building construction, including land use management and institutional economics. She is the author and co-author of over 60 scientific publications, she is also the author of the scientific monograph “Management System for Real

Estate Market Development in Latvia” and the co-author of the monographs “Real Estate and Economic Development: Synergy of Science and Practice”, “Financing Models for Housing Fund Renovation in Latvia” and “Socio-Economic Aspects of the Interaction of Urban and Regional Development”. At the moment, Assoc. Prof. Geipele is the project manager in INTERREG CB project “Coast4us” (01.01.2018 – 31.12.2020), and in two INTERREG EU projects “OptiWaMag: Optimization of waste management in urban spaces and in households” (01.08.2019 – 31.01.2023) and “PROGRESS: PROMoting the Governance of Regional Ecosystem ServiceS” (01.08.2019 – 31.07.2023). Qualification of Assoc. Prof. Geipele meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Property and Taxes”, “Introduction to Real Estate Research” and “Valuation of Real Estate (study project)”.

Gita Actiņa, Dr.oec., Associate Professor. Her scientific interests lie in sustainable development issues, development of energy saving process management systems, building construction and energy, including entrepreneurship and real estate finance. She is the author and co-author of numerous publications. In parallel to her work at RTU, she works at the World Energy Council. Qualification of Assoc. prof. Actiņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Financial Accounting of the Property”, “The Financial Aspects of Real Estate Transactions” and “The Real Estate: Entrepreneurship and Planning” and “Company’s Business Activities Evaluation”.

Raja Kočanova, Dr.sc.admin., Assistant Professor. Her scientific and academic interests lie in the areas of strategic business management, sustainability of real estate market development, building construction sector. R. Kočanova is the author and co-author of over 20 scientific publications, and the co-author of the monograph “The System of Strategic Management for Sustainable Development of Organizations” and “Real Estate and Economic Development: Synergy of Science and Practice”. She regularly advances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the Project “A Values-Led Planning Approach for Sustainable Land Use and Development. Activity 1.1.1.2 “Post-doctoral research aid” of the specific support objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and Employment” (No 1.1.1.2/VIAA/1/16/161), 2017-2020. Qualification of Associate Professor Kočanova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Practical Aspects of Building Construction Business”, “Evaluation of Technical State of Buildings and Structures (study project)”.

Kristīne Fedotova, Dr.oec., Assistant Professor. Her research interests lie in real estate management, sustainable development issues in the real estate market. K. Fedotova is the author and co-author of scientific publications, she is also the co-author of two books and regulations. She regularly enhances her competence by attending workshops, conferences and professional training courses. At the moment, she is involved in the project ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education. No 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. Qualification of Assistant Professor Fedotova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Specialized Practical Placement”, “Designing Practical Placement”, “Real Estate Market and Advertising” and “Auditing in Building Construction”.

Antra Kundziņa, Dr.sc.ing., Assistant Professor. The author of numerous scientific publications. Her research areas include strategic business management, sustainability of real estate market development, building construction sector. In parallel to her work at RTU, she works as a researcher at the Institute of Physical Energetics. Qualification of Assistant Professor Kundziņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Service Lines of Houses and Buildings", "Energy Efficiency in House and Building Management" and "Evaluation of Technical State of Buildings and Structures".

Linda Kauškale, Dr.oec., Assistant Professor, an expert of social sciences at the Latvian Council of Science in such fields as Economy and Entrepreneurship; Social and Economic Geography and other social sciences, including generic ones. In 2016, L. Kauškale became beneficiary of a scholarship Deutsche Bundesstiftung Umwelt, she works at the German Sustainable Building Council. Linda Kauškale is the author of numerous scientific publications, she has participated in international scientific projects, conferences and workshops in Latvia and abroad, etc. Her main areas of research include sustainable development of real estate market, sustainable building construction, environment-friendly buildings, certification of green building construction, macroeconomic analysis, decision making, environment protection and others. Qualification of Assistant Professor Kauškale meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Investments in Real Estate" and "Innovations in Building Construction" and "Practical Aspects of Building Construction Business".

Māris Kaļinka, Dr.sc.ing., Associate Professor, works at the projects of international significance INTERREG CB, project "Piekraste mums [Coast4us]" (01.01.2018 - 31.12.2020), etc. His research interests include urban planning, the introduction of digitization in construction and urban management, land planning. M.Kaļinka is the author and co-author of a number of scientific publications. The qualification of Associate Professor M.Kaļinka complies with the study program implementation conditions and the requirements of regulatory enactments, as well as ensures the achievement of objectives and learning outcomes of the study program and the study course "Fundamentals of Building Information System and Planning".

Iveta Amoliņa, Mg.oec., Dipl.iur., 4th-year Doctoral student, lecturer. Her research interests lie in such fields as problems of real estate systemic management, housing policies, residential development, maintenance and rehabilitation strategy, energy conservation measures and impact on the environment and sustainability. Iveta Amoliņa is an expert in residential management and rehabilitation. She is the author and co-author of over 30 scientific publications. Ivetas Amoliņa's professional experience is based on supervision of six ERAF SF projects "Improvement of energy efficiency in residential buildings". I. Amoliņa is an expert at the ESF project 8.5.2.0./16/I/001 "Improvement of the industry qualification system for the development of vocational education and quality assurance". Qualification of Lecturer I. Amoliņa meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Legal Bases of Real Estate and Movable Property" and "Organization of Real Estate Management and Administration" and "Insurance of Real Estate".

Laimdota Šnīdere, Dr.phys., Assistant Professor, RTU researcher. Her current research interests lie in the areas of energy conservation and sustainable development of building construction sector. She is a co-author of scientific publications. She regularly enhances her competence by attending workshops, conferences and professional training courses. As a researcher L.Šnīdere works on the project INTERREG EU "Optimization of waste management in urban spaces and in households" (01.08.2019. - 31.01.2023.) Qualification of Assistant Professor Šnīdere meets the requirements of

the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Energy Efficiency in House and Building Management” and “Management and Maintenance of Real Estate (study project)”.

Jānis Viesturs, Mg.oec., the 4th year Doctoral student. J. Viesturs has more than 20 years of experience in real estate management and development, and transactions with real estate. He regularly upgrades his qualification by attending seminars, conferences and professional qualification upgrade courses. His research interests include the definition of real estate, international and national transactions in real estate, various real estate registration systems, the process of verifying the legality of real estate and administration of real estate. He is a co-author of several internationally significant publications. The qualification of J. Viesturs complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses “International Transactions with Real Estate” and “European Law”.

Jānis Zvirgzdiņš, Mg.sc.oec., Dipl.ing., researcher, 2<sup>nd</sup>-year Doctoral student. His research and academic interests lie in environment-friendly economy, circular economy, sustainable development, smart urban environment, renewable and nuclear energy, as well as public administration. He was awarded the prize of the Latvian Association of Electrical Power Engineering and Energy Contest of Qualification Papers in 2015. He is a co-author of numerous scientific publications. At the moment, he works on the projects ERASMUS + Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2 – Cooperation for innovation and the exchange of good practices; KA203 – Strategic Partnerships for Higher Education; No 2018-1-LT01-KA203-046963. 01.09.2018 – 31.08.2020, and on the project INTERREG EU “PROmoting the Governance of Regional Ecosystem Services – 31.07.2023). He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of J. Zvirgzdiņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Management of Ecology”

Iveta Stāmure, Mg.oec., researcher, PhD candidate. Her interests lie in the issues related to real estate management and administration, building construction, evaluation of buildings and constructions, building materials. In parallel, she works as a real estate consultant at the society “Cēres nami” and at the Latvian Window and Door Manufacturers Association. She conducts practical training classes within the study courses “Law on construction and rules on construction” and “Valuation of Building Structures”. She regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of I. Stāmure meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course “Law on Construction and Rules on Construction”.

Kaspars Freimanis, Dipl.ing., research assistant. His interests lie in the issues related to building construction sector, evaluation of buildings and building structures, building materials, improvement of energy efficiency. In parallel, he works for the municipal enterprise “Namsaimnieks” Ltd. of Limbazhi urban area as a real estate manager, building cost estimate engineer, IT system administrator. He conducts practical training classes within the study courses “Law on construction and rules on construction” and “Valuation of Building Structures”. He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of K. Freimanis meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses “Law on Construction and Rules on Construction”, “Estimation of the Construction Operations” and “Planning and Organization of Building Construction”.

Renāte Muskate, Mg.oec., Research Assistant, candidate for a PhD scientific degree. Her range of interests concerns issues related to the valuation of real estate. She also works as a Real Estate Appraiser at JSC Citadele. She regularly upgrades her qualification by attending seminars, conferences and professional qualification upgrade courses. She is an author and co-author of a number of scientific publications. The qualification of R.Muskate complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study courses "Real Estate Valuation Basics", "Special Valuation Cases of Immovable and Movable Property", "Standards and Procedures for Valuation of Real Estate and Movable Property".

Ģirts Zariņš, MBA, BSc. phys. (Specialization – IT Electronics), certified CMMI 3 project management auditor, 1st-year Doctoral student, carries out research in urban economics, modelling, growth and sustainable development. He is a co-author of numerous scientific publications. His professional qualification was obtained during his work as a project manager for various companies in Latvia. Ģ. Zariņš regularly enhances competence by attending workshops, conferences and professional training courses. Qualification of Ģ. Zariņš meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and study courses "Law on Construction and Rules on Construction" and "Property Risks Management" and "Estimation of the Operation Costs of the Administration and Management".

Mārtiņš Vilnītis, Dr.sc.ing, Associate Professor. Certified building supervisor. Member of the Board of the Latvian Association of Civil Engineers and the Head of Education and New Specialists Section. His research interests include construction technologies, construction surveillance. He is the author and co-author of several scientific publications. M.Vilnītis develops his qualification through regularly visiting seminars, conferences and courses. Qualification of M.Vilnītis meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Construction Technology".

Andrejs Krasņikovs, Dr.sc.ing., Professor. The research activities of A. Krasņikovs relate to micromechanics of fiber concrete with a view to creating new construction materials and concrete-encasing equipment. Under his leadership, more than forty scientific publications have been developed and over twenty inventions have been patented, as well as peristaltic pumps of various structures, mechanisms for encasing fibers and techniques for making fiber concrete have been developed. In 2015, he won Friedrich Zander Prize, the most important prize in the field of mechanics in Latvia. He develops his qualification through regularly visiting seminars, conferences and courses. Qualification of A.Krasņikovs meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Material Resistance".

Velga Ozoliņa, Dr.oec., Associate Professor. Her research interest concerns the competitiveness of Latvian companies in external markets and the possibilities for strengthening them. V. Ozoliņa has worked on projects "Creating an E-study Platform for RTU Engineering Research Programs", "Developing a Dynamic Forecasting Model for Latvian Business Competitiveness", etc. She develops her qualification through regularly visiting seminars, conferences and courses. Qualification of V.Ozolina meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Econometrics".

Gunārs Ozolzīle, Dr.sc.soc., Associate Professor. Professional experience: since 1989 teaching social sciences at RTU (Sociology, Politology and Political System of Latvia) and other higher education

institutions in Latvia (University of Latvia, Latvian Academy of Sport Education, Police Academy of Latvia, College of Business Administration and Institute of Social Technologies); since 2005 the Chairman of the State Examination Commission at the Bachelor and Master study program "Sociology of Organizations and Public Administration" at the Faculty of Economics and Social Development of the University of Life Sciences and Technologies. From 1991 till 2018, he was a researcher at the market and public opinion research company Baltic Studies Centre Ltd. Research link with students is also ensured by scientific research work in projects funded by the Latvian Council of Science, the Ministry of Defense and the EU, participation in the conferences and development of scientific publications. Scientific research activities mainly address stability and efficiency of the Latvian political system, as well as reformation opportunities of certain political institutions. Such research contributes to increasing the quality of the implemented study courses and to ensuring links with national political processes. Regular methodological work – development of teaching tools and other methodological materials – helps increase efficiency of study work. Qualification of G. Ozolzīle meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Business Etiquette".

Ilona Ezera, Mg.oec., Assistant Professor at professional programs. Her research interests concern business communication and business management. She is the author of several teaching methodological materials. I.Ezera develops her qualification through regularly visiting seminars, conferences and refresher courses. Qualification of I.Ezera's meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Business Communication".

Līga Gaile, Dr.sc.ing. Associate Professor. L.Gaile is a co-author of the patent "Interior Plaster Mixture with Thermal-Controlling and Heat-Isolating Properties and its Application Technique". She has participated in project "A New Concept for the Construction of Sustainable, Low-energy Buildings" etc. L.Gaile develops her qualification through regularly visiting seminars, conferences and courses. Qualification of L.Gaile meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Construction Mechanics".

Vladimirs Šatrevičs, Dr.oec. Assistant Professor. He has worked on international and local projects, for example, on "Project 5.2.2 Innovations and Business Development in Latvia according to Smart Specialization Strategy", "EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia". He regularly enhances his competence by attending workshops, conferences and professional training courses. Qualification of V. Šatrevičs meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Work Environment and Ergonomics".

Ingūna Jurgelāne - Kaldava, Dr.oec., Associate Professor, professional experience: researcher and manager of numerous international projects. The research component working with students is added participating in scientific conferences, as well as developing publications in internationally recognized scientific publications, etc. A variety of research methods is used to present research results in the publications, including statistic ones that allow introducing the research results to the students. She is a co-author of the study book "Economic Statistics", the author and co-author of numerous scientific publications. Regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of I.Jurgelāne - Kaldava meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Economic Statistics". Different teaching methods are applied in delivering the study course, which allows students to



develop skills in statistic information collection, compilation and analysis within a certain study program, using relevant information and data.

I.Judrupa, Dr.oec., Associate Professor. She is the author and co-author of a number of scientific publications, co-author of the monograph "Assessing the Competitiveness of the Regions of Latvia". Research components in working with students are ensured with active participation in seminars and scientific conferences. She actively participates in various projects and scientific contract work. She develops her qualification through regularly visiting seminars, conferences and courses. Qualification of I.Judrupa qualifications meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Economics".

Jelena Malahova, Dr.oec., Associate Professor. The research component working with students is added participating in training workshops, scientific conferences and developing written publications. Active participation in different projects and scientific contracts. Within the study process, students acquire the relevant information according to the Cabinet Regulation No 716 "Minimum Requirements for the Content of the Mandatory Course in Civil Defense and the Content of Training of Employees in Civil Defense". She is the author and co-author of numerous scientific publications, regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of J.Malahova meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Civil Defense".

Daina Ose, Dr.jur., visiting Assistant Professor. She ensures research components in working with students through active participation in qualification upgrade seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific research work by contract. She is an author and co-author of a number of scientific publications. The qualification of D.Ose complies with the study program implementation requirements and those of regulatory enactments, as well as ensures the achievement of tasks and learning outcomes of the study program and the study course "Business and Labor Law".

Irina Liokumoviča, Dr. philol., Assistant Professor. Philologist, English teacher. English language teaching in the context of economics contributes to achievement of academic results. She has participated in international scientific conferences with presentations of reports (for instance, in the scientific conference "Linguistic, Didactic and Sociocultural Aspects of Language Functioning", Vilnius, Lithuania (2018), international conference "XXVIII Scientific Readings" (2018) at the Faculty of Humanities of the University of Daugavpils, and others, which allow gaining and sharing experience. Participation in the academic partnership "Partnership for Education and Research about responsible living (PERL)" enables to be aware of the latest trends in the sector, promotes using of methods and their adaptation. Qualification of I. Liokumoviča meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study courses "The English Language" and "The German Language".

Leonards Budņiks, Mg.oec., Mg.oec., FEEM Lecturer, ICF certified professional coach, Microsoft certified Excel expert. L. Budņiks continuously advances his professional knowledge attending local IT conferences and forums, participates in online courses and seminars, demonstrates deep interest in the impact of information technology on the society and economy. Research interests lie in information technology and systems management at small and medium-sized enterprises, open data concept, research on social impact of IT development. Qualification of L.Budņiks meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Computer Science

(basic course)".

Larisa Iljinska, Dr.phil., Professor, the author and co-author of numerous scientific publications, including the study book. Regularly enhances her competence by attending workshops, conferences and professional training courses. Qualification of L. Iljinska meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "The Business German Language".

Natalja Budkina, Dr.math., Associate Professor. She is the author and co-author of a number of scientific publications, including course books. She develops her qualification through regularly visiting seminars, conferences and courses. Qualification of N.Budkina meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Mathematics".

Aija Pola, Mg.math., lecturer. She is the author and co-author of a number of scientific publications, including course books. She develops her qualification through regularly visiting seminars, conferences and courses. Qualification of A.Pola qualifications meets the requirements of the study program and regulatory enactments, it also provides for achievement of the aims and learning outcomes of the study program and the study course "Mathematics".

In the whole, the data show that the academic staff possess appropriate qualification to ensure the appropriate quality of the study courses. A number of the university instructors in parallel work exactly in the real estate sector, therefore their competence and practical work skills are transferable to the study program.

Currently, two visiting lecturers are working at the study program. These instructors work at other higher education institutions, but they deliver certain study courses within the study program in the form of exchange, thus ensuring cooperation not only within RTU, but also with other universities.

The academic staff advance their its teaching skills and qualifications by attending conferences and workshops, different training courses, working at other organizations as consulting specialists and gaining hands-on work experience.

The university instructors annually take an active part in the methodological seminars organized by RTU and other universities.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Academic staff members actively engage in scientific research at the national and international levels. For example, during the reporting period, the following projects have been implemented:

- ESF co-financed project “Development of industry classification system and improvement of efficiency and quality of vocational education” (Agreement No 2010/0274/1DP/1.2.1.1.1/10/IPIA/VIAA/001)”. Civil Engineering Expert Board.
- “Coast for us” (Coast4us): CB627. Interreg Central Baltic Program 2014-2020. 01.01.2018 –30.09.2020. <http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en>
- Sustainable Public Buildings Designed and Costructed in Wood (Pub-Wood). ERASMUS+; KA2- Cooperation of innovation and the exchange of good practices; KA203 – Strategic Partnerships for higher education. No 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. <http://buni.rtu.lv/erasmus/?lang=en>
- A values-led planning approach for sustainable land use and development. Activity 1.1.1.2 “Post-doctoral research aid” of the specific aid objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational program “Growth and employment” (No. 1.1.2/VIAA/1/16/161). 2017-2020. <http://buni.rtu.lv/eraf/?lang=en>
- Sociological survey for the needs of the project “The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia (sustainable development of multi-apartment buildings in Riga)”. L8237: Procurement No RPAB2015/3. Commissioner’s agreement No RPAB-16-8-lī. Contractor’s agreement No 03000-3.12/16/17/ “The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia (sustainable development of multi-apartment buildings in Riga)”: European Economic Area project No 2/EEZLV02/14/GS/007. 2016 Jan.-2016 May.
- Development of multifunctional nanocoatings for protection of constructive parts of aviation and space equipment. ERDF: activity 1.1.1.2 “Attraction of human resources to science” of additional measure 1.1.1 “Development of scientific and research potential” of additional priority 1.1 “Higher education and science” of the operational program “Human resources employment” of the second stage of Riga Technical University project. 2013 – 2015 <http://buni.rtu.lv/esf/?lang=en>
- Establishment of the national significance research center for production of energy and environmental resources, and technology of sustainable use (including the development of Centre for Transport and Mechanical Engineering. ERDF: within the framework of the operational program “Entrepreneurship and Innovation” 2007 – 2013; sub-activity 2.1.1.3.1 “Development of scientific infrastructure” of activity 2.1.1.3 “Development of scientific and research infrastructure” of measure 2.1.1 “Science, research and development” of priority 2.1 “Science and Innovation”: Agreement No 2011/0060/2DP/2.1.1.3.1./11/IPIA/VIAA/007.

<http://buni.rtu.lv/laboratory/?lang=en>

- Deutsche Bundesstiftung Umwelt (DBU) Scholarship Exchange Program “MOE Ausstauschstipendiumprogramm. Scholarship Exchange Program with CEE countries” for conducting research in Germany.  
[http://buni.rtu.lv/2016/11/24/linda-kuskale/https://www.dbu.de/611ibook80262\\_37715\\_2510.html](http://buni.rtu.lv/2016/11/24/linda-kuskale/https://www.dbu.de/611ibook80262_37715_2510.html)
- Evaluation Techniques for Sustainable Management of Land Use. Research Highlights and Plans. Projects funded by the Baltic Sea Unit of the Swedish institute for the research conducted within the Baltic Sea Region Network. 21.12.2015.–30.06.2016.  
<http://buni.rtu.lv/projekti/>

Within the Deutsche Bundesstiftung Umwelt DBU exchange program scholarship “MOE Ausstauschstipendi-umprogramm – Central and Eastern Europe exchange scholarship program” for research in Germany in the autumn semester of 2016, Research Assistant L.Kauškale carried out the research in the framework of a project proposed in Germany on the “Economic and Ecological Grounds for Investment in Green Construction”. The latest findings of research are integrated into the study courses “Real Estate Economics” and “Investments in Real Estate”.

During the period from 4 to 11 July 2018, the annual training of lecturers of the Baltic Sea Region of the Baltic University Program for Sustainable Development Education “The SAIL (Sustainability Applied in International Teaching and Learning) Teachers Course 2018” took place, where Professor T.Tambovceva participated. Lecturers and scientists from different countries and universities, representing different study disciplines and scientific sectors, had opportunities to share their knowledge and experience, to study and teach, to develop their existing skills, and to work together. The main goal of the event was to improve education and scientific research in the field of sustainable development by providing concrete recommendations, proposals and solutions. The information gathered was rich in examples of how to improve sustainable development education, based on unique experiences from different countries, their developed study disciplines and research areas.

Since 2012 the Head of the ICEREE Institute, Professor Ineta Geipele has been a jury member at the contest “The Most Energy Efficient Building in Latvia 20xx” organized by of LR Ministry of Economics and VARAM within ESF Project “Live Warmer!” Also, since 2015 Professor Ineta Geipele has been a jury member at the contest “The Best Building of the Year” organized by the Latvian Builders Association, since 2014 Professor Ineta Geipele has been an evaluator at the contest “Annual Construction Industry Award” within the project of LR Ministry of Economics and Latvian Association of Civil Engineers.

Assoc. Prof. A.Auziņš participated in the jury commission of competition “Real Estate Agent 2017” organized by LANĪDA.

Information on the latest technologies is integrated in the study courses, educational trips are organized, and technological developments are integrated into the courses “Energy Efficiency in House and Building Management”, “Territorial and Detailed Planning, its Development Strategies”, “Property Typographical Measurements”, etc. Students have an opportunity to participate in the presentations of rival candidates and to gain information on the news.

The research results are published not only in international well-established databases, but also in the Baltic Journal of Real Estate Economics and Construction Management of Riga Technical University, where both academic staff members and students have an opportunity to publish their articles.

Research results of the academic staff are summarized not only in scientific publications, which are

indexed in international and scientifically significant databases, but also in the following monographs:

1. Nekustamais īpašums un ekonomikas attīstība: zinātnes un prakses sinerģija: zinātniskā monogrāfija [Real Estate and Economic Development: Synergy between Science and Practice: scientific monograph] / edited by Sanda Geipele and Raja Kočanova; reviewers: Tālavš Jundzis, Namejs Zeltiņš, Maira Leščevica; literary editor Inga Skuja; cover design: Paula Lore; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2019. 239 p. <https://doi.org/10.7250/9789934222313>
2. Judrupa, Ilze. Latvijas reģionu konkurētspējas novērtēšana: zinātniskā monogrāfija [Evaluation of the Competitiveness of Latvian Regions: scientific monograph] / Ilze Judrupa, Maija Šenfelde; reviewers: Dr.oec. Andrejs Čirjevskis, Dr.oec. Roberts Škapars, Dr.oec. Alise Vītola; scientific editor Dr.oec. Ineta Geipele; literary editor Inga Skuja; cover design: Baiba Lazdiņa; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of the Territorial Development, Management and Urban Economics. Riga: RTU Press, 2018. 150 p.
3. Auziņš, Armands. Zemes izmantošanas novērtēšana un pārvaldība : zinātniska monogrāfija [Evaluation and Management of Land Use: scientific monograph] / Armands Auziņš; reviewers: Velta Paršova, Marija Burinskiene, Siim Maasikamäe; [scientific editor Ineta Geipele; responsible for the issue Anita Vēciņa; editor Inga Skuja]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2016. 270 p. <http://dx.doi.org/10.7250/9789934107801>
4. Geipele, Sanda. Nekustamā īpašuma tirgus attīstības vadīšanas sistēma Latvijā: zinātniskā monogrāfija [Real Estate Market Development Management System in Latvia: scientific monograph] / Sanda Geipele; reviewers: Franks Rīmenšneiders, Marga Živitere, Kārlis Ketners; [scientific editors: Ineta Geipele, Armands Auziņš; responsible for the issue Natālija Čina; editor Lilita Vīksna; cover author Sanda Geipele]; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Department of Civil Engineering and Real Estate Economics and Management. Riga: RTU Press, 2015. 228 p. <http://dx.doi.org/10.7250/9789934107610>
1. Auziņš, Armands. Evaluation Methodology of Land Use Efficiency in Land Management: Summary of The Doctoral Thesis / Armands Auziņš; scientific supervisor Jānis Vanags; Riga Technical University. Faculty of Engineering Economics and Management. Institute of the Civil Engineering and Real Estate Economics. Department of the Civil Construction and Real Estate Economics and Management. Riga: RTU Press, 2013. 51 p.
2. Geipele, Sanda. Management System of Real Estate Market Development In Latvia: Summary of Doctoral Thesis. Field: management science, subfield: entrepreneurship and business management / Sanda Geipele; scientific supervisor: Tatjana Tambovceva; Riga Technical University. Faculty of Engineering Economics and Management. Institute of the Civil Engineering and Real Estate Economics. Riga: RTU Press, 2014. 63 p.
3. Kauškale, Linda. Assessment of Sustainable Development of the Real Estate Market: Case of Latvia: Summary of the Doctoral Thesis / Linda Kauškale; scientific supervisors: Dr.oec. Ineta Geipele, Dr.rer.pol. Frank Riemenschneider-Greif; official reviewers: Dr.oec. Elīna Gaile-Sarkane, Dr.oec. Maira Leščevica, Dr.oec. Natalya Bibik; Riga Technical University. Faculty of Engineering Economics and Management. Institute of Civil Engineering and Real Estate Economics. Riga: RTU Press, 2018. 60 p.
8. Kočanova, R., Geipele, I., Niedrīte, V. Stratēģiskās vadīšanas sistēma organizāciju ilgtspējīgai attīstībai. Zinātniskā monogrāfija [Strategic Management System For Sustainable

Development Of Organizations. Scientific Monograph]. Riga: RTU Press. 2013. 175 p. ISBN-9789934103483.

Textbooks have also been issued, for example, "International Transactions with Real Estate" by lecturers Jānis Viesturs and Ineta Geipele, 2017.

Viesturs J., Geipele I. Starptautiskie darījumi ar nekustamo īpašumu: Mācību grāmata [International Transactions with Real Estate: Textbook]. Riga: RTU Press, 2017. 220 p. ISBN 978-9934-10-903-4.

Results of Professor I.Geipele's scientific research and participation in projects, for example, the project ERASMUS + Sustainable Public Buildings Designed and Costructed in Wood (Pub-Wood). ERASMUS +; KA2-Cooperation of innovation and the exchange of good practices; KA203 - Strategic Partnerships for higher education. No. 2018-1-LT01-KA203-046963. Intermediate results ensure the achievement of the goals and study results of the study courses "Real Estate Management", "Introduction to Real Estate", "Introduction to Real Estate Research", as some research topics are already included in the content of these courses, such as Segmentation and Target Market options, etc.

Professor J.Vanags' scientific research is related to the Latvian economy, engineering economics, management of buildings and structures and real estate valuation, real estate economics, microeconomic and macroeconomic processes, sustainable development. The results of his research activities are included in the content of the study courses "Fundamentals of Real Estate Economics" and "Pricing in Construction", "Real Estate Economics".

Armands Auziņš has developed several teaching materials, more than 20 international scientific articles in the field of land management. His scientific interests are related to land management, land management and land surveying, as well as territorial development planning, providing the study course "Territorial and detailed planning, its development opportunities", "Cadastre and basics of cadastral valuation" in the content of topics.

L.Kauškale conducted a research within the project applied in Germany on the topic "Economic and ecological substantiation for investments in green construction", the latest findings obtained during the research are integrated into the study courses Real Estate Economics and Real Estate Investments, in the content of various topics.

Within the framework of the implemented study courses, information about news and the latest technologies is integrated, study tours to objects have taken place, news about technologies are integrated in the study course Energy efficiency in house management, territorial and detailed planning, property surveys, etc. Students have the opportunity to participate in presentations for news.

#### **4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

In order to promote achievement of the study program outcomes, it is important to establish the crosslinks among the study courses and to ensure they are acquired in the logical sequential order. The system that facilitates regular organization of academic conferences and professional

advancement seminars for improvement of professional competence has been established to promote cooperation among the academic staff at the Faculty and the University on the whole. Academic conference “Integration of methodological teaching and research work in the study process” organized on 27 April 2018 may be mentioned as an example. Such events promote advancement of the academic staff and provide opportunity to more efficiently collaborate in reaching learning outcomes and improving the study courses.

The study program implemented by the ICEREE is interdisciplinary. The curriculum consists of the study courses in building engineering, materials science, power engineering, social and economic geography, economics and entrepreneurship, other interdisciplinary social sciences, environment and occupational safety. Therefore, instructors from different organizational units, as well as industry specialists are involved in the implementation of the study courses. For example, ICEREE instructors deliver the study course “Service Lines of Houses and Buildings” and certain practical classes took place at “Rīgas ūdens” Ltd. (Riga Water Supply and Sewerage Company). Practical training classes within the study course are provided both by university instructors and industry professionals.

Guest lecturers from the industry’s leading companies are invited to implement the study course “Introduction to the Real Estate Industry”. For example, regarding the development in the management and administration of real estate, the lecture was delivered by both Professor Ineta Geipele and MScRE Ģirts Beikmanis, Chairman of the Board of the Association of Management and Administration of Latvian Housing; whereas R. Ardašs, head of Latio Ltd. Valuation Department, MScRE Didzis Usenieks, Euroexpert Ltd. assessor, delivered lectures on the specificity of the evaluation.

Cooperation among the members of academic staff is supported by the fact that before the start of the study semester the academic personnel meet and agree upon the curriculum to avoid duplication of the study course curricula.

Course sequence is provided to ensure transition from the simple and general to the more complex and professional level, which allows promoting interrelationship and progressive sequence.

The department responsible for implementation of the study program evaluates the study process and the learning outcomes at the meeting at the end of each semester. Student questionnaires concerning the quality of the study course implementation are very important in this respect. Based on the analysis of the current situation effective joint solutions are found. For example, amendments to certain study course structures are made to avoid partial duplication and to enhance interrelationship between the study courses, or changes to the curriculum of the study program are made.

The ratio of students to academic staff is as follows:

158 students: 36 lecturers.

There are 4.38 students per lecturer.

However, it should be noted that in some study courses theoretical classes are led by one lecturer, but practical classes - by another lecturer, usually a practitioner related to the field, who is also a RTU lecturer.

In separate study courses students are divided into groups. A different lecturer works with each group, for example, when developing study projects, students are assigned a study project manager.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Grafiki_kopā_ICN0 Nekustamā īpašuma pārvaldība.pdf	Grafiki_kopā_ICN0 Nekustamā īpašuma pārvaldība.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	6.pielikums_RICN0.pdf	RICN0_atbilstība_valsts standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	7.pielikums_RICN0.pdf	7.pielikums_RICN0.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	RICN0_kartejums-EN.zip	RICN0_kartejums_LV.zip
Curriculum of the study programme (for each type and form of the implementation of the study programme)	RICN0_plani.zip	RICN0_plani.zip
Descriptions of the study courses/ modules	RICN0_EN.zip	RICN0_LV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms profesionāls bakalaura.pdf	Diploms profesionāls bakalaura.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	vienosanas.zip	vienosanas.zip
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under <a href="http://www.europass.lv">www.europass.lv</a> ), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study agreement sample.pdf	Studiju līguma paraugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		



# Industrial Engineering and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Industrial Engineering and Management</i>
Education classification code	<i>45345</i>
Type of the study programme	<i>Academic master study programme</i>
Name of the study programme director	<i>Bruno</i>
Surname of the study programme director	<i>Grasmanis</i>
E-mail of the study programme director	<i>bruno.grasmanis@rtu.lv</i>
Title of the study programme director	<i>Profesors, Dr.sc.ing.</i>
Phone of the study programme director	<i>+371 67089178</i>
Goal of the study programme	<i>The aims of the program are to create and develop students' competence in industrial engineering and management; to develop professional, creative and research skills by preparing socially responsible interdisciplinary professionals capable of providing integrated and effective systems management in a variety of industries, as well as value-added research.</i>
Tasks of the study programme	<p><i>The tasks of the study program are to:</i></p> <ul style="list-style-type: none"> <li><i>-provide competitive education in industrial engineering and management, providing students with comprehensive knowledge and developing competencies relevant to the labor market, while fostering interest in further education and training to enhance academic and professional knowledge;</i></li> <li><i>-stimulate students' interest in the processes taking place in society to promote their development of into a positive, up-to-date, responsible and capable personalities who are able to critically assess situations and make independent, informed decisions;</i></li> <li><i>-promote research and practical applications of the results obtained within organizations;</i></li> <li><i>-facilitate cooperation between academic staff, students, and program administrators for the continuous improvement of the study process and the conduct of scientific research;</i></li> <li><i>-promote international mobility of students and academic staff, promote participation in projects, ensure a study process in line with international standards, attracting domestic and foreign faculty and professionals.</i></li> </ul>

Results of the study programme	<p>A graduate of the Master's study program "Industrial Engineering and Management" can:</p> <ul style="list-style-type: none"> <li>-use independently acquired theories and methods, integrate knowledge of various fields, contribute to the creation of new knowledge by developing innovative approaches in the management of industrial systems, and development of research or professional methods</li> <li>-understand and participate in the design and development of complex engineering systems,</li> <li>-manage industrial systems, analyze and evaluate system efficiency and cost-effectiveness, implement engineering systems management and development techniques to facilitate continuous improvement of their operational efficiency;</li> <li>-plan and execute industrial management projects, initiate and manage system improvement processes, identify staff competencies and credentials, contributing to the development of new development solutions;</li> <li>-contribute to the development strategy of the organization by identifying and evaluating key performance indicators;</li> <li>-determine the potential environmental and social impacts of the operation of complex engineering systems, and monitor systems for compliance with regulatory requirements and applicable standards;</li> <li>-independently promote the development of their competencies and specialization, take responsibility for the results of the work of personnel groups and analyze them</li> <li>-analyze and interpret research results, prepare and present reports and publications, discuss industrial system developments, integrated and efficient management of production units;</li> <li>-the program concludes with a final examination, which consists of defending a Master's thesis with an industrial orientation, which proves that the student has done independent research, made science-based conclusions or developed research-based creative work.</li> </ul>
Final examination upon the completion of the study programme	<p>Upon the completion of the Master's studies, the student must develop and defend a Master's thesis of 20 CP. The Master's thesis is an independent research work which is developed in close cooperation with industry.</p> <p>The Master's thesis and its presentation demonstrate the student's ability to:</p> <ul style="list-style-type: none"> <li>-compile and evaluate scientific, professional literature and sources of information in industrial engineering and management;</li> <li>-obtain, compile, analyze and evaluate data, using research methods and to analyze real-world industrial systems and production processes while reflecting understanding of interdisciplinary interactions;</li> <li>-draw reasoned conclusions and formulate proposals;</li> <li>-present the research work and to defend and argue their professional opinion.</li> </ul>

## Study programme forms

**Full time studies - 2 years - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree or fifth level professional qualification in engineering science and technologies, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master degree of social science in industrial engineering and management</i>
Qualification to be obtained (in english)	

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Full time studies - 2 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>english</i>
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree or fifth level professional qualification in engineering science and technologies, or comparable education, English language proficiency test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master degree of social science in industrial engineering and management</i>
Qualification to be obtained (in english)	

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

The Master's academic study program "Industrial Engineering and Management" is implemented and developed in accordance with the Latvian laws and regulations and the RTU Senate and the unified educational space requirements. As a result of their academic studies, students acquire theoretical knowledge and competences that correspond to the knowledge, skills and competences of the Framework Level 7 of the Latvian Education Classification.

Also on 5 February 2020, a major change was made to the degree to be obtained from a master's degree in basic science to the degree of the Master of Social Sciences in "Engineering and Management of Production".

And changed the conditions of entry from "Bachelor's degree in engineering and engineering qualifications" to "Bachelor's degree in engineering and technology, or a fifth-level professional qualification, or comparable education", which also allows students to start academic studies for graduates.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

In the first year of the Master's study program "**Industrial Engineering and Management**":

##### **Latvian student group:**

- 2013/2014. At the beginning of the academic year, there were **21 students**.
- 2014/2015. At the beginning of the academic year, there were **14 students**.
- 2015/2016. At the beginning of the academic year, there were **16 students**.
- 2016/2017. At the beginning of the academic year, there were **23 students**.
- 2017/2018. At the beginning of the academic year, there were **22 students**.
- 2018/2019. At the beginning of the academic year, there were **24 students**.

##### **In the group of foreign students:**

- 2013/2014. At the beginning of the academic year, there were **0 students**.
- 2014/2015. At the beginning of the academic year, there were **4 students**.
- 2015/2016. At the beginning of the academic year, there were **8 students**.
- 2016/2017. At the beginning of the academic year, there were **9 students**.
- 2017/2018. At the beginning of the academic year,

there were **10 students**.

- 2018/2019. At the beginning of the academic year, there were **13 students**.

The number of students in the program during the reporting period (6 years since 2013) has been stable. In each study year, one group of 14-24 students were matriculated in the first year. The dynamics of the number of students shows that students are interested in the study program.

As of 2014/2015, Foreign students have been admitted to the study program, and the number of foreign students is increasing every year. In recent years, students from India, China, Colombia, Germany, Sri Lanka, Uzbekistan, Azerbaijan have shown an increased interest in studying in this program.

Most of the students combine their studies with work (especially characteristic of the Latvian group of students), and when they start their studies in the first year, students are faced with the situation that makes it challenging to complete the study program in a timely and successful manner.

The Master's study program **"Industrial Engineering and Management"**:

- In the academic year 2012/2013, **12 students** graduated from the program.
- In the academic year 2014/2015, **18 students** graduated from the program.
- In the academic year 2015/2016, **10 students** graduated from the program.
- In the academic year 2016/2017, **9 students** graduated from the program.
- In the academic year 2017/2018, **9 students** graduated from the program.
- In the academic year 2018/2019, **11 students** graduated from the program.

Analyzing the drop-out rates of students in the Latvian group, we can see that:

- In the academic year 2013/2014, 15 students were dropped for failure (1st year - 3 students, second-year - 9 students), 3 students from the first-year left voluntarily.
- In the academic year 2014/2015 2 students were dismissed for failure.
- In the academic year 2015/2016, a total of 2 first-year students were dismissed, 1 for failure and 1 voluntarily left.
- 2016/2017. A total of 15 students were dismissed in the academic year 2004/2011, 3 from the first year for failure and 1 voluntarily, while 11 students were dismissed from the second year for failure.
- In the academic year 2017/2018, 13 students were dismissed, 2 students from the first year were removed for failure, 3 students did not recover after academic leave, and 8 students were dismissed from the second year due to failure.
- 2018/2019. 6 first-year students were unsuccessful in their academic year of study, and 1 second-year student left voluntarily.

The drop-out rates for students in a foreign group are as follows:

- In the academic year 2014/2015 one first-year student was dismissed for failure.
- In the academic year 2015/2016 only one first-year student was dismissed for failure.
- 2016/2017. In the academic year 2004/2006, one first-year student was dismissed as a non-commencement student after matriculation.
- In the academic year 2017/2018, 2 second-year students were dismissed for failure.
- 2018/2019. 5 second-year students were unsuccessful in the academic year.

students have been dismissed from their studies in the Latvian group, with the highest dropout rate being 83% voluntarily 11% and 6% failing to return after academic leave. In contrast, in the group of foreigners, a total of 10 students were excluded, of whom the highest dropout rate is 70%, then 20% were voluntarily dismissed and 10% were not enrolled after matriculation. When analyzing student drop-outs, the main reason is the failure in the study process; moreover, it

manifests in the beginning of studies in the second year. Far fewer students have left voluntarily. Usually this is due to health or family circumstances. Only a few students have not resumed their studies after their academic leave.

English studies are chosen by students from different countries such as India, China, Colombia, Germany, Sri Lanka, Uzbekistan, Azerbaijan. The largest number of students, 85%, come from India.

Statistical data on the students of the study program is available in Appendix 5.

**At RTU, there is a Gold Fund**, which includes only the most outstanding and capable RTU graduates, who are selected based on academic achievements and social activities. In the academic year 2016/2017 **Rihards Dziedātājs**, a graduate of the program, was enrolled in the RTU Gold Foundation.

### 1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.

*The Social sciences Master's degree in Industrial Engineering and Management* is awarded after passing the theoretical subjects and defending the Master's thesis in the Final Examination Commission.

Note that the Master's study program **"Industrial Engineering and Management"** is currently interdisciplinary and has no similar study programs in Latvia. On the other hand, the international education space has a small number of similar programs. The content of the study program is similar to the study programs of the partner higher education institutions, therefore it is possible to expand knowledge within the study programs of the partner universities of NORDTEK program: Taltech (Estonia), Riga Technical University (Latvia), Kaunas University of Technology (Lithuania), Vilnius Gediminas Technical University (Lithuania). The cooperation network is considered to be a unique program and it offers significant added value for both students and graduates. The content of the study program comprises not more than 50% of the courses of engineering sciences.

The Master's degree program enrolls students with a prior undergraduate education in engineering and develops an in-depth understanding of management and resource management issues related to engineering systems, making graduates competitive in the labor market.

## III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of

## Studies and Implementation Thereof)

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

Analyzing compliance with the Cabinet of Ministers Regulations Nr. 240 "Regulations on the National Standard for Academic Education", approved on May 13, 2014, it can be concluded that the academic Master's program "Industrial Engineering and Management" meets the requirements of the standard. Annex 6 compares the program with the standard requirements.

The program includes study courses that enhance students' competencies in industrial engineering and management, improve professional, creative and research skills, and develop socially responsible interdisciplinary professionals capable of providing integrated and effective systems management in diverse industries, able to carry out research with added value.

The compliance of the study course content with the needs of the industry, the labor market and current trends is ensured by the annual study program self-evaluation working group, which includes representatives of the labor market, student representative and academic staff. The changes are discussed in the commission of the study direction "Management, administration and real estate management" and submitted to the Faculty Council for approval.

Following the recommendations of the working group, changes have been made in the study program:

Study ProRector Order No 02000-1.1/e 92 of 16 October 2019 made the following changes:

### **1. Change to Part A "Required Study Courses":**

#### Exclude study courses:

- BTC503 "Fundamentals of Business Administration" 3 CP
- IUE582 "Industrial Marketing" 4 CP
- IRO455 "Organization of Small and Medium-Size Business" 3 CP
- IRO513 "Organization of Productivity Management" 3 CP
- BTC501 "International Industry" 2 CP
- BTC502 "International Business" 3 CP
- MRA716 "Industrial Product Design" 4 CP

#### Include a study courses:

- IVZ837 "Modern Business Models" 4 CP
- IIU705 "Strategy and Change Management" 4 CP
- IVZ839 "Research Project in Business Management" 4 CP
- IEU515 "Financial Analysis and Planning" 4 CP
- IAS701 "International Business" 2 CP
- IVZ836 "Innovation and Technology Transfer" 4 CP

## 2. Change to Part B2 “Humanities and Social Studies Courses”:

Exclude study course:

- HFL438 “European Classical Philosophy” 2 CP

Include a study course:

- IVZ718 Corporate Social Responsibility and Business Ethics 2 CP

Order No 020001.1/16 of 11 March 2016 was amended when the study course “Quality Technology Management” 3 CP was replaced by “Quality Technology Management” 4 CP. The study course “International production” has changed CP volume from 4 CP to 2 CP.

Upon completion of the Master's degree, the student must develop and defend a Master's thesis of 20 credit points. The Master's thesis is based on independent research work, which is developed in close cooperation with industry. The Master's thesis and its presentation demonstrate the student's ability to compile and evaluate scientific, professional literature and information sources in industrial engineering and management; obtain, collect, analyze and evaluate data using research methods, and analyze real-world industrial systems and production processes, and reflect an understanding of cross-industry interactions; an ability to draw reasoned conclusions and formulate proposals, as well as the ability to present the research work and to be able to defend and argue a professional opinion.

The Master's thesis investigates the topical issues of industry and companies, taking into account the changes in the national economy in the global economic processes, the influence of innovations and technologies on these processes. For example, collaboration between universities and industry, valorisation and the development of new business models, business process improvement, etc., is increasingly emphasized in the world. Students have worked on the following topics: "Business Promotion Systems at the School", "Model of Domestic Waste Recovery", "Business Model Development for a New Electricity Solutions Consulting Company in Latvia", "Business Process Modeling Analysis of Aircraft Ground Operations", etcetera.

The study courses are updated according to the trends of the field and science. The teaching staff regularly improves their qualification, as well as approbates their scientific research results in their study courses. Corresponding topicalities of the study courses are provided by invited guest lecturers from the industry.

For example, Viesturs Zeps was a guest lecturer in the course "Management of Innovation Strategy". Uldis Cimdins, International Business - Linda Saulite and others have also participated.

Students also participate in the improvement of the study content by completing questionnaires at the end of each semester and assessing the content of the study courses acquired during this semester and the quality of their implementation. The views of graduates and employers play an important role in improving the content of the program.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**



The results of the academic Master's study program "Industrial Engineering and Management" are interrelated with the aims and results of the study courses included in the study program. The aim of the study program is closely related to the 8 achievable learning outcomes defined by the program. These results are achieved by appropriate study courses.

The study courses of the study program can be divided into three large blocks:

- Manufacturing Engineering courses (Operational Systems and Strategies 4CP; Production Planning and Management 3CP; Production Management Information Systems 3CP; Industrial Applied Intelligent Systems 2CP; Supply Flow Management 3CP; Production Modeling Applications 4CP);
- Management and Innovation Courses (Innovation Strategy Management 3CP; Modern Business Models 4CP; Financial Analysis and Planning 4CP; Strategy and Change Management 4CP; International Business 2CP; Innovation and Technology Transfer 4CP; Quality Technology and Management 4CP);
- General education and research and creative activity courses (Statistical Analysis 3CP; Research Project in Business Management 4CP; Corporate Social Responsibility and Business Ethics 2CP; Labor Safety Basics 1CP; Business Sociology 2CP; Presentation Skill 2CP; Psychology 2CP; Pedagogy 2CP 2CP).

This division helps students to acquire in-depth knowledge, skills, and competences. The content of study courses, their volume, individual and group work, as well as the content of examinations ensure fulfillment of binding normative acts. The linkage of these study courses to the learning outcomes of the program will be reflected in the mapping of study courses; Annex 8.

The content and scope of the examinations correspond to the content defined in the course descriptions and the requirements of skills and knowledge. All credit requirements are explained in the description of each course. Study course planning is attached in Appendix 9, while study course descriptions are summarized in the RTU Register of Study Courses. The descriptions of the courses included in the academic master study program "Industrial Engineering and Management" are attached in Appendix 10. In total, it contains a description of 16 compulsory study courses (A), 6 limited-choice study courses (B) and the final examination (E).

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study process is organized in such a way that students acquire both theoretical knowledge and practical skills. Different forms of training are used in the study process: lectures; seminars and discussions; business games; individual and group work; student presentations of individual and group work; lectures, seminars and seminars for visiting lecturers, visiting companies or visiting universities. As well as solving practical problems (case studies) for strengthening knowledge, research of specific problems for the development of scientific research skills. Students develop skills in working with databases (available via the ORTUS Library, Bloomberg Finance Laboratory),

selecting relevant information and analyzing scientific articles. Both individual and group research is widely used. Students develop critical thinking, professional and academic development, developed and promoted through group work. As students work in groups, they must be able to share tasks among themselves, which strengthens their skills in working with colleagues, developing independence and a sense of responsibility, and promoting mutual respect. Self-directed learning is a way to help students achieve better learning outcomes. The classes are interactive and invite students to discuss various aspects of the lecture topic, participate in decision making and problem solving. an active process in which a student actively use their knowledge and experience to acquire new knowledge and skills.

The final assessment of study courses includes a system of summative assessment - the final grade consists of several components, as a result students' work during the semester influences their final grade. Criteria for assessment of study courses and individual / homework are published in advance in the ORTUS system. During the semester, homework, tests, reports, presentations and other assignments are given a certain weight in the final grade. The exam mark may not exceed 50% of the final mark. The study process focuses on developing students' knowledge, attitudes and competences, emphasizing the growth of each student. Not only do they complete the course with a final grade, but they also provide feedback (comments and suggestions) on their work.

All faculty members have at least 2 academic hours of counseling each week, where students have the opportunity to communicate with the faculty and receive answers to their questions. In addition, lecturers are open and welcoming to students, so it is widespread practice to communicate with each other electronically, both via email and the facilities provided by ORTUS.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

There is no internship in the study program, but the students of the Free elective part (Part C) can choose the course Practical work - 2 CP and go to practice in the organization for which they wish to develop a Master's thesis.

**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

At the end of the program students have to develop a Master's thesis on topical issues, where the student has to demonstrate the knowledge acquired during the study process. The Master's thesis is publicly defended at the Final Examination Commission. The commission operates in accordance with the regulations approved by the Senate. The composition of the final jury is approved by the Dean of the IEVF on the recommendation of the Program Director. Within the framework of the study program and master's thesis development process, students mostly do applied research. Analyzing topics during the reporting period, we often find that graduate students choose to write

about the industry or company they work in, and based on their previous education in engineering, develop work that combines engineering with economic calculations and / or business.

Master's theses can be divided into:

1. Possible process improvement in companies;
2. New business models;
3. Improvements in technological solutions;
4. Quality improvement in the operation and production of enterprises;
5. Integration of management information technologies in the company;
6. Economic justification of technological solutions.

Analyzing the student's master's thesis, the evaluations show that in the academic year 2013/2014 12 graduates received their master's degree. Defending the final state examination - Master's thesis, were the following assessments:

- 1 or 8.34% rating 10 "excellent"
- 4 or 33.33%, ratings 9 "excellent"
- 4 or 33.33% rating 8 "very good"
- 3 or 25% rating 7 "good"

in the academic year 2014/2015 18 graduates received their Master's degree. Defending the final state examination - Master's thesis, were the following assessments:

- 2 or 11.11% rating 10 "excellent"
- 11 or 61.11% rating 9 "excellent"
- 3 or 16.67% rating 8 "very good"
- 2 or 11.11% rating 7 "good"

in the academic year 2015/2016 10 graduates received their Master's degree. Defending the final state examination - Master's thesis, were the following assessments:

- 2 or 20%, ratings 9 "excellent"
- 4 or 40% rating 8 "very good" ratings
- 3 or 30%. rating 7 "good"
- 1 or 10% rating 6 "adequate"

For the first time in this academic year one foreign student graduated from the program defending their Master's thesis with a grade of 6 ("adequate") in the academic year 2016/2017, 9 graduates received their Master's degree. Defending the final state examination (Master's thesis), were the following assessments:

- 2 or 22.22% rating 10 "excellent"
- 6 or 66.67% rating 9 "excellent"
- 1 or 11.11% rating 8 "very good" 7

foreign students received a master's degree with the following ratings:

- 1 or 14% rating 9 "excellent"
- 1, or 14% rating 8 "very good"
- 1 or 14%. rating 7 "good"
- 1 or 14% rating 6 "adequate"
- 3 or 44% rating 4 "below average"

in the academic year 2017/2018, 9 graduates received their Master's degree. Defending the final state examination (Master's thesis), were the following assessments:

- 2 or 22.22% rating 10 "excellent"
- 2 or 22.22% rating 9 "excellent"
- 3 or 33.34% rating 8 "very good"
- 1 or 11.11% rating 7 "good"
- 1 or 11.11% rating 4 "below average"

3 foreign students received a Master's degree with the following ratings:

- 1 or 33.33% rating 7 "good"
- 1 or 33.34% rating 6 "adequate"
- 1 or 33.33% rating 5 "mediocre"

in the academic year 2018/2019, 11 graduates received their Master's degree. Defending the final state examination (Master's thesis), were the following assessments:

- 2 or 18.2% rating 10 "excellent"
- 5 or 45.46% rating 9 "excellent"
- 3 or 27.28% rating 8 "very good"
- 1 or 9.06% rating 7 "good"

One foreign student graduated from the study program in this academic year defending his Master's thesis with a grade of 6 ("adequate")

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The study quality monitoring and assurance system introduced by RTU in 2008 provides for regular electronic surveys of students on the content of studies and the quality of teaching staff using the ORTUS system.

Student surveys are conducted each year after the fall and spring semesters. The questionnaires include questions about the availability of study literature for each particular course, lecturer evaluation criteria, work culture and quality, respect of student rights during classes, time spent on student independent work and study discipline. The final part of the questionnaire is intended for students' suggestions and suggestions for the improvement of the subject and the lecturer's work quality. Questionnaires are filled in anonymously so that the answers given will not influence the attitude of the lecturer to the particular student or group of students and the objective of receiving the students' objective assessment will be achieved.

The views expressed by the graduates are summarized in the table below.

Absolutely agree	Partially agree	Neutral rating	Partially disagree	Strongly disagree	No rating
(5)	(4)	(3)	(2)	(1)	(6)

2013./2014	I am satisfied with the chosen study program	-	-	-	-	-	-
2014./2015		-	-	-	-	-	-
2015./2016		-	-	-	-	-	-
2016./2017		25%	75%	0	0	0	0
2017./2018		22%	67%	11%	0	0	0
2018./2019		60%	40%	0	0	0	0
2013./2014	I am satisfied with the acquired theoretical knowledge	-	-	-	-	-	-
2014./2015		-	-	-	-	-	-
2015./2016		-	-	-	-	-	-
2016./2017		0	75%	25%	0	0	0
2017./2018		44%	44%	11%	0	0	0
2018./2019		20%	60%	20%	0	0	0
2013./2014	I am satisfied with the acquired practical skills	-	-	-	-	-	-
2014./2015		-	-	-	-	-	-
2015./2016		-	-	-	-	-	-
2016./2017		25%	50%	25%	0	0	0
2017./2018		11%	11%	56%	22%	0	0
2018./2019		40%	40%	20%	0	0	0
2013./2014	I am satisfied with the premises where the classes were held	-	-	-	-	-	-
2014./2015		-	-	-	-	-	-
2015./2016		-	-	-	-	-	-
2016./2017		100%	0	0	0	0	0
2017./2018		12%	33%	33%	22%	0	0
2018./2019		60%	20%	20%	0	0	0
2013./2014	Most of the teaching staff posted materials in the e-learning environment	-	-	-	-	-	-
2014./2015		-	-	-	-	-	-
2015./2016		-	-	-	-	-	-
2016./2017		100%	0	0	0	0	0
2017./2018		56%	44%	0	0	0	0
2018./2019		40%	40%	0	20%	0	0

The study program is regularly surveyed by students, graduates and employers. Based on the student questionnaire, there have been changes in the study program, as well as the study course "Basics of Business Management"

"Modern business models" are very good, and they are "Financial analysis and planning" courses, and they are necessary knowledge of financial planning and planning. The program is supplemented with the study course "Strategy and Change Management", providing students with the need to know today's rapidly changing situations. Based on the recommendations of graduates, several study programs, such as "Modern Business Models", "Innovation Strategy Management", etc., guest lecturers from the industry are invited to share their experience. Based on the results of graduates 'and students' questionnaires, the planning of lectures has been improved and currently the whole study process takes place in the form of modules.

## 2.7. Provide the assessment of the options of the incoming and outgoing mobility of the

**students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Students have had the opportunity to improve their knowledge in foreign universities within the framework of the ERASMUS program since 2012/2013. By 2018-2019, 9 students took advantage of this opportunity.

In 2012, two students, Liva Upmale and Ilze Lapsiņa, studied at the Université de Technologie de Troyes in France for the ERASMUS exchange program, where they took courses in International Business, Production Modeling, Pedagogy, etc. In 2013 Arturs Geger spent one semester in Linköping University, Sweden, studying International Business, Quality Management, Psychology, etc., and spent the next semester in Erasmus Internship in Sweden at TermoRegulator AB; while Martin Lysmanis studied Production Modeling at Linköping University in Sweden for one semester. In 2015 Dāvis Bochoks also participated in the exchange program at Linköping University in Sweden. In 2017 Alexei Batenko taught courses in Pedagogy, Psychology, Operational Systems and Strat Energy at the Polytechnic University of Milan (Campus Leonardo). In 2018 Solvita Oļševskis studied at Troyes University of Technology in France and Robert Reinis Šļaukstiņš studied at KTH - Royal Institute of Technology in Sweden both improving their knowledge. After analyzing the foreign universities selected by students, it is concluded that the majority of students chose to expand their knowledge in the participating universities of the NORDTEK program; because the partner universities have similar study programs in Industrial Engineering and Management, it is easy to recognize study courses.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The RTU Scientific Library is the oldest university library in Latvia and the strategy and operational purpose is mainly related to the RTU operational objectives and tasks. The library subscribes to more than 20 databases (a list of all databases is available at <http://www.rtu.lv/content/view/388/1337/lang.lv>). The RTU Science Library was one of the first in Latvia to introduce RFID technologies, thus becoming a modern university library. One of the major innovations that made the library more user-friendly is the self-service book-dispensing machine. This means that books no longer need to be queued and patrons can receive and return books without a librarian. The library provides access to the latest periodicals, statistics, books, conference proceedings on economic and business issues. Each year the library is supplemented

with educational and scientific literature as well as periodicals used in the study work. Every year, funds for the purchase of literature are allocated for the study program, and the teaching staff orders the necessary materials. Students can use the Bloomberg Financial Laboratory, IEVF Creative Workshop, RTU Design Factory, etc. within the RTU infrastructure. Other elements of the RTU infrastructure are available for students and faculty including canteens and cafes, copying rooms, student hotels, RTU sports and recreation centers, a swimming pool, etc. Vending machines for various drinks and snacks are also available at RTU premises, as well as drinking water.

As mentioned above, electronic subscribed databases as well as temporary trial databases such as EBSCO, SCOPUS (published by Elsevier), SPRINGERLINK, SCIENCEDIRECT, etc., are available to RTU students and academic staff through the RTU Central Library. Database information is available on all computers in the Central Library, Branch Libraries, RTU computer network and the RTU portal ORTUS (Resources Students are actively using this database in the course in their individual work on capital investment valuation. Academic staff also have access to Firmas.lv and the Amadeus databases, which can be used for both study and research purposes.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Both RTU elected lecturers and visiting docents participate in the implementation of the study program as well as representatives of the scientific staff. Guest lecturers are usually representatives of the industry who share their experience and current developments in the field within a study course. During the reporting period, the lecturers have changed, according to the changes in the study program. There are a number of new lecturers, for example, Dr. Yegor Fedorov, Dr. Deniss Scheulov, Dr. Nadezhda Coleda, etc. This change is positive, because young lecturers are involved in the implementation of the study program.

### **4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

A qualified teaching staff, whose level of education, scientific interests correspond to the study courses included in the program and requirements set in the laws and regulations of the Republic of Latvia, participate in the implementation of the study program.

Professor **Galina Merkurjeva** is a Habilitated Doctor of Engineering Sciences, Institute of Management Problems, Russian Academy of Sciences, Diploma Nr. DK 018072. Doctoral degree in Science is equivalent to the British Post-Doctoral Standard (Dr.habil.sc.ing.), UK NARIC, Certificate no. 1941575656 dated 14 July 2005. A certificate from the Latvian Academic Information Center N 207766 dated 6 November 2007 regarding the examination of the obtained diploma and its equivalence to the doctoral diploma submitted in Latvia.

She teaches courses in the following areas: Engineering Solutions for Integrating Virtual Computing and Simulation, Production Planning and Management. She supervises 4 doctoral theses and 58 Master's theses, 7 foreign Master's students (from Germany, Netherlands, Slovenia and Italy) and two researchers (from Austria and Greece). She regularly gives guest lectures at foreign universities, including Belgium.

The research component in the work with students is provided by regular participation in scientific research projects. Projects of the last 5 years include: ENPI project No. 1 of the EU Program "The Estonia - Latvia - Russia Cross Border Cooperation Program within the European Neighborhood and Partnership Instrument 2007-2013". ELRI-184 INFROM: Integrated Intelligent Platform for Monitoring the Cross-Border Natural-Technological Systems (Member of the Steering Committee, Principal Investigator); COST Action TD1406 "Innovation in Intelligent Management of Heritage Buildings" (Latvian Steering Committee Member, Head of Working Group) and "COST Campaigns".

Participation in scientific-research projects and international scientific conferences, preparation of scientific publications and inservice training ensure achievement of full-time study results.

Dr. **Mārīte Kirikova**. Professor, Riga Technical University, Department of Artificial Intelligence and Systems Engineering, Institute of Applied Computer Systems, Faculty of Computer Science and Information Technology (since 2007) Regular research work, including 2 publications (SCOPUS) together with Baltech students in their Master's theses. Activities in associations and organizations: LZP expert in Engineering and Computer Science Commission, Information Technology. Member of the commission of the study field "Information Technology, Computer Science, Electronics, Telecommunications, Computer Control and Computer Science".

- Member of the Institute of Electrical and Electronics Engineers (IEEE) in 2005 and since 2007.
- Member of the Association for Computing Machinery (ACM) since 2005.
- BIR (International Conference on Perspectives in Business Informatics Research) - Member of the Management / Advisory Committee since 2009 and Chairman since 2015.
- CAiSE (Conference on Advanced Information Systems Engineering) - Member and Co-Chair of the Management / Advisory Committee since 2015.
- BalticDB&IS (International Baltic Conference on Databases and Information Systems) - Member of the Management / Advisory Committee 2014, 2016, 2018
- PoEM (IFIP Working Conference on Practice of Enterprise Modeling) - Member of the Management / Advisory Committee since 2013. etc.

The professor's competencies are in the fields of information systems design, involvement of field experts in the study course, and use of modern design tools.



Dr. **Jegor Fedorov**, PhD in Engineering, sub-branch of systems analysis, modeling and design of information technology.

Since 2011 teaching various subjects (case studies, probability theory and mathematical statistics, static analysis, securities market participants strategy modeling, securities management theory and mathematics). In addition, he has accumulated a wealth of experience in the financial field - debt and asset management, working for the Treasury of the Republic of Latvia and Swedbank for more than 15 years in investment and discrete portfolio management.

Students are offered modern statistical approaches to data analysis, repeating the basics of probability theory and mathematical statistics.

He worked at the Latvian Mathematical Society.

Acquisition of contemporary books, attending various thematic conferences and exchange of experience with colleagues inside and outside RTU (Malmö University, Bratislava Technical University, etc.)

Dr. **Alida Zigmunde**. The research component of the teaching staff in the work with the students is provided by the transfer of their research work experience to the study course "Pedagogy", the students are encouraged to read additional literature and investigate certain problems using the theoretical basis.

#### **Activities in scientific and professional organizations:**

1. Baltic Association of Historians of Pedagogy (since 2007), Member of the Board (since 2010)
2. Member of the International Society for History and Systematic Textbooks and Educational Media (2007-2018)
3. Baltic Science History and Philosophy Association (since 1991), Member of the Board (since 2006)
4. Secretary of the Latvian Association of History of Science (since 2006)
5. Member of the International Association of Historians of Continuing Education of the World (from 2012)
6. Member of TheodoreLitaSociety for the Study and Promotion of Humanities (from 2009)
7. Member of Vocational Education Teachers Association of Latvian Language and Literature (from 2017)
8. Member of the Association of Latvian, Higher Education Professors (from 2018).

The achievement of full-time study results is ensured by the regularity of classes, information on topics of lectures and practical work, their planning, use of latest literature, discussions, regular and purposeful work of students, motivation of the lecturer to study, friendly, a welcoming atmosphere, and an opportunity to discuss issues of interest to students.

Dr. **Leonid Ribickis**. Since 2001 he has been the Director of the Institute of Industrial Electronics and Electrical Engineering of the Faculty of Power and Electrical Engineering. In 2000, he was elected Vice-Rector for Science at RTU, but since 2011 has been Rector of Riga Technical University. Member of the Latvian Council of Science since 2002, Latvian Academy of Sciences. Member of the Latvian Academy of Sciences, Member of the Latvian Association of Scientists, Member of the Latvian Association of Higher Education Professors, Member of the State Scientific Qualification Commission.

Active in various scientific projects:

- InnovativeSolutions and Recommendations for Increasing Local and Renewable Energy in Lat

via (RTUAER), VPP-EM-AER-2018 / 3-0004 Head of State Research Program (01.01.2018 - 31.12.2021.).

- During the period 01.01.2014 - 31.12.2017. "Energy-efficient and low-carbon solutions for secure, sustainable and climate-friendly energy supply (LATENERGI)" project No.1 "Innovative Energy Electronics Technologies for Increasing Energy Efficiency in the Latvian Economy" Head of the National Research Program.
- 01.01.2013 - 31.12.2016. 7.FrameworkProgram Project AREUS "Automation and Robotics for European Sustainable Manufacturing", EC Grant Agreement No. 609391 - Scientific Director of the RTU Unit, ESF.
- 01.01.2012 - 31.12.2015. No. 530379-TEMPUS-1-2012-1-EN-TEMPUS-JPCR "Development of a Training Network for Improving Education in Energy Efficiency" - TEMPUS member, etc.

The professor has professional competencies in the fields of energy resources and robotics, ensures integration of the current scientific tendencies in the study process.

**Professor and leading researcher Jānis Mazais**, besides his academic, scientific and organizational activities, is an active member of Latvian and global organizations promoting the implementation and development of quality standards, and is the Chair of the Accreditation Commission of the Latvian National Accreditation Bureau, Deputy Chair of the Latvian Technical Committee for Standardization LVS/STK/10 "Quality Management and Quality Assurance" of 'Latvian Standard' Ltd, RTU representative at the Latvian Quality Society, member of the American Society for Quality (ASQ) (since 1992). He has developed study courses in bachelor and master's study programs "Total Quality Management" (in the Latvian language), and courses in "Quality and Environmental Management" and "Quality Technology and Quality Management" (in English) in other RTU study programs, developing also the international reputation and internationalization of RTU. He participates in several European and global projects, for example, as one of the most significant in the period 2006-2010 was participation in the ASQ ISO-TC 176 International Study Group where a New Work Item Proposal - Justification Study was developed, and also developed the ANSI Z1.11 Document "Application of the ISO 9001 Quality Standard in Educational Organizations". The identification of the application of the ISO 9001 quality standard in educational institutions is a milestone in the integration and indexing of quality systems in the educational process in Latvia.

All the professional and scientific competencies of the teaching staff involved in the study program can be found in the appendix, which contains the teaching staff CVs.

11 professors and 2 associate professors elected to RTU participate in academic positions in the implementation of the compulsory part and the limited optional part of the study program. As well as the other lecturers involved in the implementation of the study program have a doctor's degree.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The teaching staff has been active on the editorial boards of international journals and committees of international conferences, including EURAM (European Academy of Management), ICEM (International Conference on Economics and Management), WMSCI (World Multi-conference on Systemics, Cybernetics and Informatics,

USA), the Baltic Journal of Modern Computing et. Al. in the work of editorial boards.

The academic staff has scientific publications in the international databases SCOPUS, Thompson Reuter, Elsavier and others. The full list of lecturers and their scientific achievements is reflected in the CVs of the lecturers. Some examples of the scientific activity of the teaching staff include:

Prof. **Galina Merkurjeva.** The main direction of scientific work are closely related to the subject of the study subjects:

- Simulation modeling and metamodeling technologies and tools;
- Planning and managing production and logistics cooperation;
- Mac computing services for industrial companies.

Participation in the implementation of scientific-research projects ensures close connection of the taught subjects with the application of modern scientific methods in solving current problems. For example, production planning tools for DECORPART (UK) were developed by the European Commission's GROWTH Competitive and Sustainable Growth Program G7RT-CT-2001-05044 SIM-SERV Virtual Institute for Production Simulation Services. In the framework of the European Union 6th Framework Program Project Specific Targeted Research Project NMP-032378 ECLIPS, Extended Collaborative Integrated Life Cycle Supply Chain Planning System (2006-2009), a new approach to planning supply chain operations and optimization.

Prof. **MāriĶe Kirikova** has extensive research activities and is actively involved in various international and national projects:

#### **Manager or participant in international research projects and programs**

1. "Adapting ICT Solutions for Active and Healthy Aging in the Baltic Sea Region" (ACTIVATE) - Preliminary Project for Cooperation in the Baltic Sea Region, Swedish Institute, Sweden. In 2019, in collaboration with Örebro University School of Business, Sweden - member, head of RTU.

2. Erasmus+ Program "EPIC - Improving Employability through Internationalization and Collaboration" from 2017 - Member and Head of RTU, Managing Partner - Aalborg University, Denmark.
3. Project "Improvement of IT-Security in Process Analysis and Risk Patterns" funded by the Baltic-German Office of Higher Education, 2015 - member and leader of RTU, in cooperation with Tartu University (Estonia) and Rostock University (Germany), Managing Partner - University of Tartu, Estonia.
4. Erasmus+ project "Collaboration and Innovation for Better, Personalized and IT-Supported Teaching - Colibri" (PVS ID 1933), 2014-2017 - Member and Head of RTU, Managing Partner - Aalborg University, Denmark.

#### **LZP, MES, etc. manager or participant in institutional projects and programs**

1. Center of Excellence in Information and Communication Technologies. Study "Creating a Prototype to Enforce Control and Financial Regulator Responsibilities and Private Portfolio Management" in collaboration with Lursoft, 01.08.2019 - 31.03.2020. - Participant.
2. Center of Excellence in Information and Communication Technologies. Research "Development of Flow Optimization Model for Data Processing Algorithms for Identification of Politically Important Persons" in cooperation with Lursoft, 2016-2017. - Head of RTU.
3. Center of Excellence in Information and Communication Technologies. Research "Applying the Able Paradigm in the Management of Business Support Processes of Small and Medium Sized Enterprises" in cooperation with JSC "Datorzinību Centrs", 2016-2017. - Head of RTU.
4. National Research Program on Cyber Physical Systems, Ontologies, and Bio-photonics for a Safe & Smart City and Society (SOPHIS). Project No.2 "Ontology-Based Web-Based Knowledge Engineering Technologies" (No.10-4 / VPP-4/11) 2014-2017 - Participant.
5. Center of Excellence in Information and Communication Technologies. Research "Automated Analysis of Regulatory Documents Regulating Business Processes of an Organization and Compliance Maintenance" in collaboration with RIX Technologies - Head of RTU. 2014

**Jurijs Merkurjevs.** Doctor of Engineering Sciences, Riga Technical University (Diploma B-Dh 000091, April 7, 2007) Teaches subjects in the following areas: system modeling and simulation, supply chain management. Director of the study program "Logistics Systems and Supply Chain Management" (Master's studies, since 2012). Supervisor of 9 doctoral and 82 Master's theses. He regularly gives guest lectures at foreign universities, including in the last 5 years: Belgium, Uzbekistan, USA and India.

The research component in the work with students is provided by regular participation in scientific-research projects. Projects of the last 5 years: ENPI project No 1 of the EU Program "The Estonia - Latvia - Russia Cross Border Cooperation Program 2007-2013". ELRI-184 INFROM Integrated Intelligent Platform for Monitoring of Cross-Border Natural-Technological Systems (Project Manager);

National Research Programs 2.2.1. "Next Generation Information and Communication Technology (ICT) Research National Program (NexIT)" Project 3 "Applications of Sensor Networks and Signal Processing in the Economy" Sub-project "Perform Research and Develop Innovative Solutions in Intelligent Transport Systems" (Executor); Flag-ERA JTC 2016 EU Program Project Future ICT 2.0 (Scientific Lead of RTU Project Partners) and European Innovation Partnership Program 16.1 "Innovative solutions for planning and organizing transportation of agricultural and forestry products" (project executor).

He is active in associations and organizations within the following organizations:

- Full member of the Latvian Academy of Sciences
- Fellow of the European Academy of Industrial Management
- President of the Latvian Society of Imitation and Modeling
- Senior Member of the Society for Modeling and Simulation International (SCS)
- Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member of the editorial board of the International Journal of Modern Computing, etc.

Participation in scientific-research projects and international scientific conferences, preparation of scientific publications and qualification improvement, including: Further training of foreign universities in the last 5 years: 2019 Autonomous University of Barcelona (Spain); 2018 Vel Tech Technical University (India), 2017. Ghent University (Belgium), etc. Publications: author of 367 scientific publications (including 11 monographs, 15 articles in books, 51 articles in journals and 155 articles in international conference proceedings), 26 authored (including 6 textbooks) and 12 scientifically popular publications, as well as 62 volume s and articles stock editor. Hirsch Index:

- Publications in the Scopus database: 11 (18.10.2019)
- Publications in the "Web of Science" database: 8 (18.10.2019)
- According to Google Scholar: 17 (18.10.2019)
- According to ResearchGate: 14 (18.10.2019)

Dr. **Yegor Fedorov**. The field of research involves the application of modern statistical methods in electricity and finance, i.e. use of multi-scale breakdowns for equipment damage forecasting and financial options pricing. Research results are often presented in lectures.

Professor Dr. **Alida Zigmund**. Has participated in international scientific conferences and working in professional organizations of teachers, exchanging experience with the teaching staff of Latvian and foreign higher education institutions, she regularly publish the results of my research in books, articles, conference proceedings and introduce them to students both in practical classes and in theory. She introduces students to the findings, research, current trends in education, pedagogy of Latvia, Europe and other countries. She has participated in projects related to topical issues in contemporary pedagogy - participation in LZP project "Research of Education System Quality, Lifelong Learning, Inclusive and Media Pedagogy in Latvian and International Context". 09. 1615, vad. A. Kruse (2012); Participation in the international project "Cultural Learning: Connecting, Engaging and Imagining" / Cultural Learning: Connecting, Engaging and Imagining for the EC Horizon / Horizon 2020 (01.06.2016 - 31.12.2016), lead. I. Chester.

Associate Professor Dr. **Denis Scheulov**, 75 publications since 2009, exploring issues related to using the electronic environment to increase business competitiveness, digital marketing, e-commerce and business model development. Professional (more than 6 years as a Marketing Manager) and research experience ensures current knowledge of the industry and facilitates the acquisition and application of new study methods.

Associate Professor, Dr. **Nadežda Koleda**. Scientific and applied research is related to theoretical and practical solutions of financial stability of a company, issues of financial analysis and planning, business finance skills. 26 publications in total since 2007. She has participated in numerous conference presentations and published research papers included in conference proceedings indexed by the Web of Science and / or SCOPUS. Her college's practical activities and interests are

related to organizational KPI assurance, quality management, change management, business process improvement and implementation, and more. She has experience in financial project management, budgeting and auditing, training and coaching as well as experience in client and operational support in a multicultural environment.

Associate Professor, **Ieva Andersone**. Education: Doctorate in Economics, Business Administration subdivision. Professional experience: For more than 15 years teaching as a research assistant, lecturer, docent and researcher. Research component in student work is provided by participation in scientific conferences and publication work. Attended RTU pedagogical qualification improvement courses and IEVF academic conference on integration of teaching methodological and scientific work in the study process. In addition, participation in various seminars has provided an insight into the latest industry trends, and promotes the acquisition of new methods that enable students to master industry-related current events.

Dr. **Marina Platonova**. Since 2017 at RTU Faculty of E-Learning Technology and Humanities. Research interests are related to the management of technical translation terminology. Has participated in scientific conferences and produced publications on topics such as recognizing and interpreting references in technical texts, metonymy in various forms of communication, rhetorical strategies in the context of professional communication, etc.

Dr. **Elīna Gaile-Sarkane**. Since 2000, she has authored 130 scientific publications on topics such as using the electronic environment to increase business competitiveness, interdisciplinary methodologies for developing entrepreneurial skills, and more. She has participated in numerous conferences with research results and published scientific articles in publications indexed in Web of Science and / or SCOPUS databases. Has been co-owner of two patents on a variety of projects: a method for separating and spreading butter and similar substances, and a device for carrying out the process, and a holder for transporting non-dried paintings. She has experience in supervising doctoral theses, she has defended 5 doctoral theses.

Dr. **Jānis Mazais** is a member of the editorial board of the international scientific journal "Research on Enterprise in Modern Economy" (Gdansk University of Technology) and an editorial board member of the international scientific journal "Journal for Sustainable Development" (Skopje, Republic of North Macedonia). He has participated in international scientific conferences, published articles in internationally cited editions, and has been active in organizational activities. Professor has many years of scientific experience in the field of quality management, incl. in the beginnings of quality management in Latvia. He is still active in research, and research is one of the compulsory components of the study courses he leads. The professor has prepared two chapters: "Quality Assurance" and "Quality and Service Awards, Russia", for the international encyclopedia "The SAGE Encyclopaedia of Quality and Service Economy", edited by Professor Su Mi Dahlgaard-Park, published by: California, Thousand Oaks: SAGE Publications, Inc., 2015.

The competence of all academic activities of the teaching staff involved in the study program can be found in the CV supplement.

The academic staff integrates their scientific research results in the study process in various ways. For example, the study course DOP408 "Operational Systems and Strategies" uses a pedagogical approach based on case studies. The approach is based on the example of improving the production process, which has been developed by prof. Jānis Grabis. The research results have been published:

1. J Grabis, C. Chandra (2016) Joint optimization of process design and operational policies, IEEE Engineering Management Review, 44(3), 32-45;

2. J. Grabis, C Chandra (2010) Process simulation environment for case studies, J Grabis, Proceedings of the 2010 Winter Simulation Conference, 317-326;

Case studies allow learning the use of basic methods and models of operations management. In the second part of the study course, students are introduced to the development of new operations management models. For these purposes, prof. Jānis Grabis study, which is published in the Top 5 journal of SCIMAGO Information Systems and Management Science "Omega: International Journal of Management Science": C Chandra, J. Grabis (2008) Inventory management with variable lead-time dependent procurement cost, Omega 36 (5 ), 877-887.

To introduce students to practical applications, examples from a joint ERDF-funded study with PwC "Multi-Criteria Enterprise Transport Route Planning Support" are used.

Prof. Jurijs Mekurjevs leads a project where the European Innovation Partnership Program 16.1 project "Innovative solutions in the planning and organization of transportation of agricultural and forestry products" study course DMI502 "Supply flow management" in practical classes, supply chain analysis, modeling and evaluation of the most suitable variants developed in the project for innovative solutions in the planning and organization of transportation of agricultural and forestry products.

Assistant Professor Yegor Fyodorov in the study course DMS420 "Statistical Analysis" on the topic of statistical data analysis and risk calculations, uses his dissertation research "Risk forecasting within continuous time models for technology and market assessment" shows how to use data analysis and risk inversion and their prediction.

Prof. Mārīte Kirikova has created joint scientific publications with students, based on the incorporation of students' master's theses.

1. Kirikova, M., Kanepējs, E. Centralized vs. Decentralized Procurement: A Literature Review. In: CEUR Workshop Proceedings, Sweden, Stockholm, 24-26 September, 2018. CEUR-WS.org, 2018, vol.2218, p. 217-232. In database: SCOPUS, dblp.
2. K. Dimitre., M. Kirikova. Process Ecosystem Perspective in Socio-Technical Change Handling. The 4th International Workshop on Socio-Technical Perspective in IS development (STPIS'18), June 12, 2018, Tallinn, Estonia. CEUR Workshop Proceedings, CEUR-WS.org, vol. 2107, p. 111-118, 2018. In database: SCOPUS, dblp.

#### **4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The lecturers involved in the implementation of the program cooperate within the study courses to ensure the linkage and continuity of the study courses. Research project in business management. During the project, students carry out a research project to better prepare for their Master's thesis. During the project, students analyze relevant scientific literature, draw up a research plan, conduct research and prepare scientific publications for presentation and defense at a student scientific conference. The obtained research results serve as a basis for elaboration of the Master's thesis. The teaching staff also cooperate with each other in the framework of scientific proj

ects, thus integrating the results of scientific projects into study courses, such as J. Merkurjevs, G. Merkurjeva, M. Kirikova, etc. In the academic year 2018/2019, 81 students studied and 16 lecturers provided the courses, so the ratio is 5:1.



# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5_Statistical data about the students in the study program_ENG.pdf	5 Pielikums_Statistikas dati par studējošiem studiju programmā.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6_Study program compliance to state education system_ENG.pdf	6 Pielikums_Atbalstība valsts akadēmiskās izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8_Kartejums_MMZ0.xlsx	8 Pielikums_Kartejums_MMZ0.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9_Schedule of study courses_MMZ0.pdf	9 pielikums_Studiju kursu plānojums_MMZ0.pdf
Descriptions of the study courses/ modules	Appendix 10_Study courses_ENG.7z	10 pielikums_Studiju kursu apraksti_LV.7z
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma_MMZ0_ENG.pdf	Diploma paraugs_MMZ0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement.zip	Vienošanās.zip
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	Study agreement_ENG.pdf	Līguma paraugi_LV.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Ražošanas inženierzinības un vadība_MMZ0.pdf	Ražošanas inženierzinības un vadība_MMZ0.pdf

# Total Quality Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Total Quality Management</i>
Education classification code	<i>42526</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Inga</i>
Surname of the study programme director	<i>Lapiņa</i>
E-mail of the study programme director	<i>inga.lapina@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr.oec.</i>
Phone of the study programme director	<i>+371 67 089498</i>
Goal of the study programme	<i>The aim of the professional bachelor study program "Total Quality Management" is to prepare Engineers in Process Quality Management - specialists in quality system engineering, quality assurance, conformity assessment and risk management, to develop students' understanding of professional ethics and socially responsible management, to broaden their vision, as well as form a basis for further studies to acquire a higher level of knowledge and competence.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>- to ensure a competitive bachelor's level education corresponding to international standards in quality engineering and conformity assessment;</i></li> <li><i>- to provide students with a comprehensive knowledge, to develop special skills and competencies required in the labour market for quality managers or process quality engineers, to train students for practical work;</i></li> <li><i>- to ensure development and amendments to the content of the study program, the study process and research work in line with the changes in the field of quality management and conformity assessment, international practice, science and didactic;</i></li> <li><i>- to develop students' interest in further professional development, further perfection of academic knowledge, as well as develop students' research skills and facilitate their application;</i></li> <li><i>- to stimulate students' interest in social processes, to enable them to develop into positive, modern, reliable, ethical and capable individuals, who can act independently and take autonomous decisions;</i></li> <li><i>- to encourage interaction between the academic staff and students in the development of research work and practical use of the research results in quality management and conformity assessment in various organisations, and promote international mobility and participation in projects.</i></li> </ul>

Results of the study programme	<p><i>The graduates of the professional bachelor study program "Total Quality Management":</i></p> <ol style="list-style-type: none"> <li><i>1. are able to develop and implement an organization's quality management system taking into account stakeholder interests, quality risks, and normative acts, standards and other requirements applicable to systems, products and processes;</i></li> <li><i>2. are able to identify, evaluate and monitor process quality, use process quality assessment methods and tools appropriate to the organization's needs, analyse and interpret the received data;</i></li> <li><i>3. are able to identify the factors and risks influencing the quality, perform quality measurements and identification and assessment of related risks;</i></li> <li><i>4. are able to plan and implement a conformity assessment program and to organise and participate in the internal and external quality assessment process;</i></li> <li><i>5. are able to plan the resources needed to ensure and develop the quality of systems, processes and products, determine the competence and authority of the personnel involved, manage quality development, risk prevention and mitigation activities;</i></li> <li><i>6. are able to evaluate and improve organizational processes and their interaction, understand the key performance indicators of an organisation and assess the costs associated with quality loss;</i></li> <li><i>7. are able to ensure compliance with applicable standards, normative acts and other requirements applicable to systems, processes and products, within the scope of their authority;</i></li> <li><i>8. are able to carry out research according to the bachelor's level studies with added value in the field of quality management and/or conformity assessment, use information and communication technologies, analyse, interpret and present the results;</i></li> <li><i>9. are able to work individually and in a team, continue professional development, act ethically and responsibly to avoid harming society and the environment.</i></li> </ol>
Final examination upon the completion of the study programme	<i>The state examination, including elaboration and defence of the bachelor's thesis.</i>

## Study programme forms

### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>general or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional bachelor degree in quality management</i>
Qualification to be obtained (in english)	<i>Engineer in process quality management</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 5 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>5</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>160</i>
Admission requirements (in English)	<i>general or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional bachelor degree in quality management</i>
Qualification to be obtained (in english)	<i>Engineer in process quality management</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)

#### 1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction

The professional bachelor's study program "Total Quality Management" was established on 15 December 2003 (RTU Senate Resolution No.482). The program was first accredited on 12 July 2006 for a six-year period.

The volume of the study program is 160 CP. General secondary education or 4-year vocational secondary education is required to start studies. Upon successful completion of the study program, the student is awarded a Professional Bachelor's Degree in Quality Management and an Engineer in Process Quality Management

**The place of implementation** of the study program is Riga. The modes of implementation are **full-time intramural** (4 years) and **part-time extramural** (5 years). Part-time studies at RTU are organized in accordance with the decisions of the RTU Senate and administrative orders. The full-time study program is implemented according to the study process planning at RTU – with 2 semesters per study year, each semester lasting 20 weeks: 16 weeks of studies and 4 weeks of examinations.

Since 2011, when the study program was adapted according to student requirements, it has been implemented mainly in the form of full-time intramural studies. During the reporting period, there has been a tendency for students to choose the qualification - Engineer in Process Quality Management while studying full-time. This has a positive impact on learning outcomes, as the number of contact hours is higher compared to part-time studies, and full-time students are usually more involved in study quality improvement activities and extra-curricular activities.

The **place of implementation** of the study program is **Riga**. The study program is no longer implemented in the RTU affiliations.

The study program is implemented only in the **Latvian language**.

#### 1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.

During the reporting period (since 2013), the number of students has been stable, 25-27 students were matriculated in the first year of each study year (see Appendix 5, "Statistical data"). The highest number of matriculated students in the reporting period was in the 2016/2017 academic year. The number of students in the study program is within the range of 68-76 students. Most students have the opportunity to study in state-funded places: from 91% in the 2013/2014 and

2019/2020 academic years up to 99% in the 2015/2016 and 2018/2019 academic years.

The stability of the number of students can be explained by the steady development of the quality field in Latvia, as well as global trends, which point to a steady increase in international (e.g. ISO) and regional product, process and system standards. At the same time, conformity assessment continues to evolve from traditional assessments carried out in compliance with the requirements of the standards, and conformity assessment specialists (e.g. Compliance Officer, Sustainability Officer, etc.) are also needed in the sectors and organizations that do not use standards but develop, maintain and improve their management systems according to industry-specific criteria and guidelines. There is also a shortage of quality specialists in Latvia, and in 2018, the profession of Quality Engineer was included among the professions that are forecasted to have a significant labour shortage and in which foreigners can be invited to work in the Republic of Latvia (see Section 2.1 for details).

Since the study program was established, 198 students have graduated, 186 of them full-time and 12 part-time. The number of graduates is related to the number of students matriculated in a particular year, the number of drop-outs and the number of students resuming their studies after their academic leaves (see Appendix 5 "*Statistical data*", figure and table "Dynamics of the number of graduates"). As mentioned above, during the reporting period the majority of students have chosen full-time studies, and the distribution of graduates is formed accordingly.

The best graduates of RTU who have demonstrated outstanding achievements in academic work and / or social activities are particularly honoured by being included in the **RTU Golden Fund**. In the 2013/2014 academic year graduate Agita Paukste was included in the Golden Fund, in the 2014/2015 academic year – graduates Estere Antāne and Olga Mihailenko, in the 2015/2016 academic year – graduate Annija Lubāne, in the 2016/2017 academic year – graduate Aija Medne, in the 2017/2018 academic year – graduates Arta Pīlēna and Ilva Paltere, in the 2018/2019 academic year – graduate Aleksejs Mališevs.

Statistics show that 10% of students were exmatriculated each year during the reporting period. The dropout rate does not include students who were exmatriculated as they did not start their studies after matriculation or did not sign a study contract (in 2016/2017 – 3, in 2017/2018 – 4, in 2018/2019 – 2) or signed a study contract but did not attend classes (in 2018/2019 – 5). Most students are exmatriculated in the first year, for example, if in the 2014/2015 academic year there were 6 cases, then in the 2016/2017 academic year there were as many as 14 cases (see Appendix 5 "*Statistical data*", figure "Student drop-out rates and the reasons"). In the 2015/2016 and 2016/2017 academic years the drop-out rate due to academic failure was the highest in the reporting period. In other study years dropout ranges from 6% to 9%. The relatively high dropout rate is related to the fact that the first year studies are based on general and field-specific study courses. The biggest problems for some students in the first and second year of studies are the following courses: "Mathematics", "Physics" and, up to 2016 also "Descriptive Geometry and Engineering Graphics". In the following years of study (3<sup>rd</sup> and 4<sup>th</sup> study year), the situation improves significantly in terms of performance.

Analysing the dynamics of the number of students in relation to the development trends in the sector in the world and the situation in Latvia, the professional bachelor's study program "Total Quality Management" is expected to have a stable number of students and wide development opportunities.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and**

**professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The professional bachelor's study program "Total Quality Management" corresponds to the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014 "Regulations on the National Standard for the Second Level Professional Higher Education" (see Appendix 6 "*Compliance with national standard*") and the RTU normative documents.

The title of the study program, its aim, tasks, learning outcomes, professional qualification and admission requirements are closely related. For details on the conformity of the study program with the professional standard, see Appendix 7 "*Conformity with the professional standard*" and on the internal coherence of the study program – the correspondence of the title, aims and tasks to the learning outcomes – see Appendix 8 "*Mapping of the Program*". The content of the study program corresponds to the requirements of the labour market, which are defined in the professional standard "Engineer in Process Quality Management". Program is designed so that it gives graduates the competences required by the standard. In order to ensure the interconnection of the requirements of the bachelor's level study program, the content of the studies and the learning outcomes, the program ensures acquisition of both professional and general competences. Professional competence is acquired by studying the field-specific theoretical study courses (36 CP), professional specialization study courses (60 CP), internship (26 CP), as well as developing and defending bachelor's theses (12 CP). Whereas the acquisition of general competencies is acquired in the general education and humanities (20 CP) study courses, as well as in the elective study courses (6 CP) (detailed information see Section 2.2).

The study program is implemented in the Latvian language. However, to facilitate internationalization and intercultural communication as well as the English language learning, some courses in the program are conducted in English, bringing together students from Latvia and Erasmus+ mobility students from different countries. Currently, the courses "Process Analysis and Management" and "Social Responsibility and Business Ethics" are being implemented in English.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The professional bachelor's study program "**Total Quality Management**" is currently the only **one in Latvia** and there are only a few similar programs in the international education area, therefore the competitiveness of the graduates can be defined as very high. The content of the

study program reflects the development trends in the industry and ensures training of specialists. Today, quality management is part of every organization's management process. The ever-changing business environment and business process transformation require professionals capable of contributing to the continuity of the organization's operations, meeting changing customer needs and requirements of normative acts, as well as analysing factors affecting the organization's operations, defining preferred strategic direction scenarios and identifying business risks and opportunities. Total Quality Management contributes to organizing day-to-day operations, improving business performance and increasing customer satisfaction, thus ensuring long-term success, efficiency and effectiveness of the organization. It ensures process and product compliance with defined criteria, facilitates monitoring and traceability of the organization's performance, and actions are taken to reduce the possibility that the identified risks could occur. The organization creates an environment where processes, products and services meet customer requirements and needs, are safe to use, create value for society and the environment. The development of quality management systems, process management, compliance and risk assessment, market surveillance, a wide range of quality methods, advanced technology and research skills are based on the changing business environment and the growing importance of risk management in the world. The graduates are able to identify the versatile interests of the organization's management, customers, owners and society, and are able to analyse, evaluate, design, disseminate and implement quality and process management and development methods to foster continuous improvement of the organization's performance.

The topicality and sustainability of the study program is evidenced by the growing number of institutions implementing and maintaining quality management systems in Latvia every year, including the number of accredited institutions, including cross-border accreditation and industry representation. For example, the number of institutions accredited in Latvia during the reporting period 2013-2019 has increased by 25%; since 2015, there have also been 5-7 cross-border accreditations every year.

The topicality of the study program is also evidenced by the fact that the profession of quality engineer is included in the Cabinet of Ministers of the Republic of Latvia Regulations No.108 of 20/02/2018 "Specialties (professions) in which a significant shortage of labour force is forecasted and in which foreigners can be invited to work in the Republic of Latvia". According to short-term labour market forecasts based on employer surveys, nine new jobs were planned for 2019, "specialists in HR and career, quality management systems and risk management", including six in Riga and three in Kurzeme. In all cases, employers indicated that specialists are to have a higher professional education. Three of the reasons for creation of new jobs are related to the expansion of businesses and six – to the increase in the volume of work. Although the report mentions that that it was planned to eliminate four of the positions in the Pierīga region in 2019, this does not reduce the need for professionals in this field, as 17 long-term vacancies have been there since 2018.

The competitiveness of the study program is confirmed by the fact that, according to the State Revenue Service data available to the RTU administration, all graduates are employed as quality engineers, quality managers, quality management system specialists and unit managers in various economic sectors, including conformity assessment institutions, as self-employed persons or sole proprietors, who provide consulting and auditing services related to quality management.

The content of the study program is updated according to the trends in the industry, labour market and research developments. The study program is improved every year, taking into account the results of student surveys as well as recommendations of employers. Quality management specialists working in various fields are involved in the study program "Total Quality Management", for example, Latvian Quality Association, Business Efficiency Association (BEA), Latvian National Accreditation Bureau (LATAK), State Construction Control Bureau of Latvia (SCCB), Latvian Standard



Ltd (LVS), conformity assessment and certification bodies, Riga Social Service, SJSC "Latvijas Pasts", Latvia's medical institutions, public administrations and a number of companies of various other fields.

**Involving industry professionals in the study process** enhances students' understanding of the importance of quality engineering in organizational development and competitiveness, develops their ability to seek new quality improvement solutions within organizations, implement technical and technological process improvements, product and technology innovations to enhance productivity, quality, and economic efficiency, enabling the company to pay its employees a competitive salary while providing higher profit than the industry average.

Due to close cooperation between the Latvian Quality Association, the study program management, academic staff and industry professionals, a **new professional standard** was developed and approved in 2019. The simultaneous approval of the professional standards of both Process Quality Engineer (6th level of LQF) and Quality Manager (7th level of LQF) ensured consistency and continuity between the requirements of the two related professions. The study program fully ensures the acquisition of knowledge specified in the professional standard (see Appendix 7 "Conformity with the professional standard").

In accordance with the internal quality assurance system, a self-assessment group of study program is formed every year. The working group annually audits the program and discusses necessary changes with students and all the teachers involved in the program implementation. Also in 2019, a meeting of the Department of Quality Technologies (Minutes No.22603-2/4) established a self-assessment working group that includes the academic and administrative staff, as well as student representatives and industry professionals.

During the reporting period, **several changes were made** to the professional bachelor's study program "Total Quality Management".

**In the 2012/2013 academic year**, in order to ensure exact compliance with the requirements set forth in the Law on Higher Education Institutions, the volume of studies was changed from 161 CP to 160 CP, and accordingly the volume of compulsory study courses (Part A) was changed from 89 CP to 88 CP. At the same time, in Part A the study course "Stochastical Process Analysis – 3 CP" was replaced with the study course "Process Analysis and Control – 2 CP".

**In the 2013/2014 academic year**, changes in the study program were related to the updating of courses in Part B, Section B1 Field-specific courses – outdated courses that had not been implemented in recent years were excluded from the program. The course "Business and Labour Law – 3 CP" was included in the study program.

**In the 2014/2015 academic year**, work continued on the improvement of Part B, particularizing the specialization courses and removing outdated study courses from Section B.2. The course "Introduction to Research – 4 CP" was included in the program.

**In the 2015/2016 academic year**, changes in the study program were made in accordance with the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014; also the first professional standard "Engineer in Process Quality Management" was developed, so the study program was changed accordingly. The volume of Part A (Compulsory Courses) was changed from 88 CP to 80 CP, Part E (Final / State Examination) was changed from 14 CP to 12 CP, and the volume of Part B (Compulsory elective study courses) was changed from 26 CP to 36 CP. In addition, in Part B, Section B.1 (Field-specific study courses), a thematic group of study courses – "Common to the Field" was introduced in order to facilitate recognition of courses acquired by students during Erasmus+ mobility.

In accordance with the requirements of the professional standard, the content of the program was updated and several study courses were transferred between Parts A and B.

- the study course “Descriptive Geometry and Engineering Graphics – 2 CP” was excluded from Part A;
- in Part A, the study courses “Macroeconomics – 2 CP” and “Microeconomics – 3 CP” were combined, resulting in a new study course “Economics – 4 CP”;
- the study courses “Quality Costing – 3 CP” and “Quality Assurance Systems – 2 CP” were transferred from Part A to Section B.1 (the thematic group Common to the field);
- in Section B.1 (the thematic group Common to the field) the study courses “New Product Design and Development Methodology – 4 CP” and “Corporate Social Responsibility – 3 CP” were included.

**In the 2016/2017 academic year**, the courses of Part A were updated. The study courses “Computer Basics – 3 CP” and “Computer Studies (Special Course) – 2 CP” were replaced with study courses “Business Intelligence Technologies I – 3 CP” and “Business Intelligence Technologies II – 2 CP”.

As before, the courses were updated **in the 2017/2018 academic year**. The study courses “Basics of Occupational Safety – 1 CP” and “General and Occupational Safety – 1 CP” were replaced with the study course “Work Environment and Ergonomics – 2 CP”.

**In the 2018/2019 academic year**, the study program was restructured in accordance with the decision of the RTU Senate of 23 March, 2015 (Minutes No.588) “On Unified Requirements for Study Programs of Riga Technical University”, which stipulates that in accordance with the unified requirements of RTU changes are ensured by the program directors until the next regular accreditation of the respective study direction. Following the decision of the RTU Senate, the courses of Part A were restructured and moved between sections A.1 General education study courses, A.2 Field specific theoretical basic study courses and IT study and A.3 Field specific professional study courses, with corresponding changes in the volume of each section.

Thematic parts or directions “Textile and Clothing Technology” and “Power industry”, which until then were offered for student choice, were excluded from Part B of the program. During the reporting period (since 2013), they had not been implemented because of lack of student interest. Section B.2 “Humanities and social sciences study courses” was increased from 2 CP to 4 CP and the course “Business Management – 2 CP” was included.

Along with the structural changes, in accordance with the recommendations of the study program audit working group and consultations with the working group of professional standard “Engineer in Process Quality Management”, in the spring of 2019 several Part A and Part B study courses were updated and changed:

- the study courses “Harmonized System of Conformity Assessment – 3 CP”, “Industrial Measurements – 3 CP”, “Testing and Certification – 4 CP”, “Configuration Management – 3 CP” were replaced with courses “Conformity Assessment – 4 CP”, “Metrology and Industrial Measurements – 4 CP”, and “Standardization – 2 CP”;
- the study courses “Quality Assurance Methodology – 4 CP” and “Quality Assurance Systems – 2 CP” were replaced with courses “Quality Improvement Methods – 4 CP” and “Quality Audit – 4 CP”;
- the study course “Quality Costing – 3 CP” was replaced with the course “Quality Costs and Resource Analysis – 4 CP”;
- the study course “Corporate Social Responsibility – 3 CP” was replaced with the course “Social Responsibility and Business Ethics – 2 CP”.

The last minor changes in the study program were made in the autumn semester of the 2019/2020 academic year, after approval of a new edition of the professional standard “Process Quality Engineer”. The changes included increasing the volume of Part A Compulsory study courses from 80 CP to 84 CP by transferring “New Product Design and Development Methodology – 4 CP” from Part B, thematic group Common to the Field to Part A; this course is now compulsory in all RTU bachelor’s level study programs. At the same time, the volume of Part B Compulsory elective study courses was reduced from 36 CP to 32 CP, the volume of Section B.1 was reduced from 28 CP to 24 CP and the volume of the thematic group Common to the Field from 18 CP to 14 CP.

In Part B, Section B.1, Field-specific study courses, thematic group “Mechanical Engineering and Transport”, the study courses were updated, and outdated study courses were excluded, adding new courses “Fundamentals of Logistics – 2 CP”, “Supply Chain Management and Freight Forwarding” – 2 CP and “Organization of Traffic and Environment Protection – 2 CP”.

In Part B, Section B.1., Field-specific study courses, thematic group Civil Engineering, the study courses were updated, and outdated study courses, which were no longer implemented, were excluded, but new courses “Innovations in Building Construction – 3 CP”, “Law on Construction and Rules on Construction – 2 CP” were added.

In Part B, Section B.2., Humanities and social studies, the course “Intercultural Communication – 2 CP” was included.

All changes reflect external tendencies and confirm the relevance of the study program to the situation in the industry and the labour market. Changes in the study program are based on the necessity to ensure compliance with the trends in the industry, labour market and science development, to maximize the acquisition of professional competences and preparedness according to the requirements of the professional standard.

In the implementation and development of the study program a **close connection with the development trends of science** is ensured. Every year the academic staff of the study program participates in the international conference “Quality Management and Organization Development / an International Conference on Quality and Service Sciences” or QMOD / ICQSS where specialists – scientists and practitioners from all over the world – Europe, Asia, Africa and the Americas – come together. This conference is the world’s leading conference on quality management. The research of doctoral students of FEEM in quality management, conformity assessment, certification, market surveillance, quality culture is integrated into study program (for more information, see Section 4.5).

Students develop research works on topical issues in the field, studying and analysing scientific and professional literature in libraries and international databases. Students apply their knowledge and insights in practical research during internship in Latvian or foreign companies, analysing quality, process management, compliance and risk issues, developing and implementing solutions for business improvement. Students present their research results at the annual RTU Student Scientific Conference and summarize them in their bachelor’s theses, which are presented at the conclusion of the studies. The results of individual studies are also summarized in scientific publications (for more information, see Section 2.5).

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a**

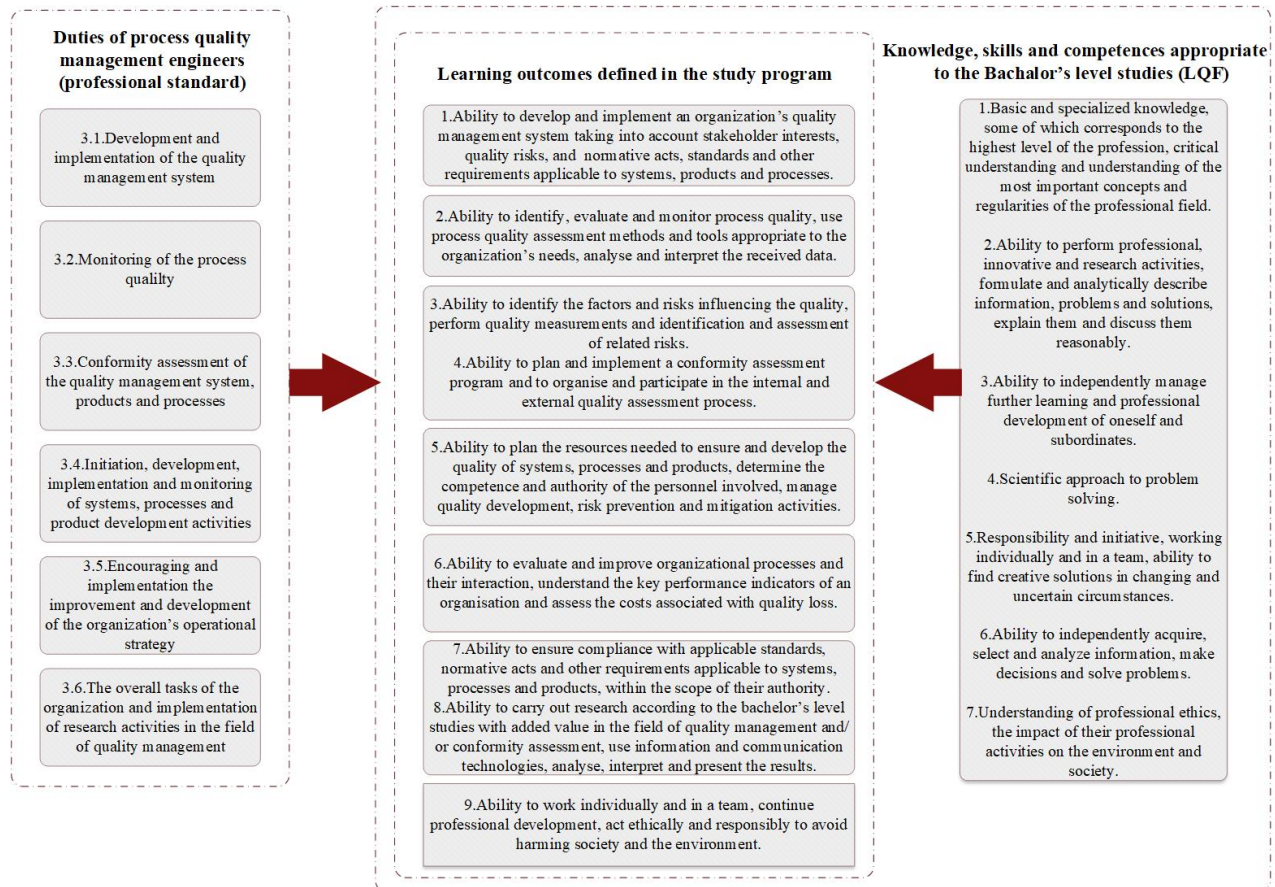
## **description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The professional bachelor's study program "Total Quality Management" corresponds to the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014 "Regulations on the National Standard for the Second Level Professional Higher Education" (see Appendix 6 "The Compliance with the National Education Standard").

The study program ensures connection between the information included in the study courses, the learning outcomes, aims and methods, as well as connection of each study course with the aims and learning outcomes of the study program. The aim of the program is designed according to the needs of the national economy, various industries, consumer safety, as well as social needs: to prepare process quality engineers – specialists in quality system engineering, quality assurance, conformity assessment and risk management, to develop students' understanding of professional ethics and socially responsible management, as well as form a basis for further studies to acquire a higher level of knowledge and competence. The tasks of the study program are designed to educate students by ensuring the acquisition of professional qualification of a process quality engineer at the 6th level of Latvian Qualification Framework (further in the text – 6th level of LQF) corresponding to the 5th level of professional qualification (5.PQL) (corresponds 6.LQF), as well as to promote students' competitiveness in changing socio-economic conditions and international labour market (see: The program parameters section).

The learning outcomes of the study program are closely related to the requirements defined in the professional standard (see Figure "Interrelation between the study program title, LQF, professional qualification (or professional standard) and learning outcomes").

## Interconnection between name of the study program, LQF, professional qualification and learning outcomes



The structure of the program consists of the study courses, internship outside the educational institution (in the text – internship), state examination, an integral part of which is the elaboration and defense of the bachelor's thesis. A Professional Bachelor's Degree in quality management and the qualification of process quality engineer are awarded after completing theoretical subjects, completing internship tasks and defending bachelor's thesis with the State Examination Commission.

The compulsory content of the study program consists of:

- general education study courses in the volume of 20 CP: courses in humanities and social sciences and languages, including courses, which develop social, communicative and organizational skills (Parts A.1 + B.2 + B.6);
- field specific theoretical basic study courses and IT study – 36 CP (Part A.2);
- field specific professional study courses – 60 CP (Parts A.3 + B.1);
- elective study courses – 6 CP;
- internship – 26 CP;
- State examination, which includes the elaboration and defense of a bachelor's thesis in the volume of 12 CP.

The structure of the study courses is organized on three levels. In the general education, humanities, social sciences and elective courses students mostly acquire general knowledge, personal and social competences. Professional competences are developed in the field-specific and professional study courses, there more emphasis is placed on the development of skills and professional preparedness, whereas in the internship and in the elaboration of the bachelor's thesis students demonstrate the acquired skills and competences.

The proportional distribution of the study courses and planning of studies facilitates the fulfilment of

the requirements set by the professional standard and LQF.

The plan of studies is designed taking into account the succession of the study content (see Appendix 9 "Study plan of the program"). All conditions for obtaining credit points are described in the description of each study course (see Appendix 10 "Description of study courses"). The content and volume of examinations correspond to the content of the study course curricula and make it possible to check the level of achievement of professional qualification skills, knowledge and competence.

The aim, tasks and learning outcomes of the study program are reached as a result of successive acquisition of study courses (see Appendix 8, "Mapping of the learning outcomes of the study courses"). Analysis of the study program parts confirms that the content of studies in logical proportions ensures the fulfilment of the requirements of the professional standard (see Appendix 7, "Compliance with the professional standard"). Most of the learning outcomes are acquired in field-specific study professional study courses (Part A.3), followed by field specific theoretical basic study courses and IT study (Part A.2), general education courses (Part A.1) and field-specific study courses, thematic group "Common to the Field" (Part B.1).

The study courses consist of thematic blocks of Quality system, Technical and technological processes, Conformity assessment, non-conforming product control and risk assessment. They are coordinated with each other (see also Section 4.6).

Mapping and analysis of the impact of field specific study courses on the achievement of the learning outcomes show the following impact on the learning outcomes of the study program: internship and elaboration of the bachelor's thesis have comparatively more influence, as well as the study courses "Total Quality Management" and "Quality Improvement Methods".

The analysis of the impact of thematic blocks of the study program on the acquisition of knowledge defined by the professional standard shows that more emphasis is put on the acquisition of knowledge at the level of use (See Appendix 7 "Compliance with the professional standard" and also on the internal coherence of the study program – the relevance of the title, aims and learning outcomes see Appendix 8, "Mapping of the learning outcomes of the study courses").

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The methods used in the study program contribute to the achievement of the aims and learning outcomes of the study courses and program, taking into account the principles of student-centered teaching and learning. One of the basic principles of RTU FEEM study programs is democracy and dialogue with students, their active involvement in the improvement of the study process. Students can realize their participation in the improvement of the study process directly – by expressing their wishes to the teacher, head of the department, study program director, or through the student self-government, represented by its members in the FEEM Council, RTU Senate and RTU Senate commissions, as well as the RTU Academic Convention. FEEM relationships with students are characterized by mutual trust, respect and honesty. Conformity with the principles of student-

centered education (hereinafter – SCL) is constantly ensured. As defined in the SCL Manual, **student involvement in the study process and content development** is assured thus creating additional responsibilities and authority for students. Students are provided with the opportunity to influence their own study process, exercise their autonomy, and provide feedback on the study process in line with their expectations. The FEEM student self-government plays an important role in providing links between the students, academic staff and program administration, and it actively participates in all these processes and conducts annual evaluation of the academic staff. In several documents – the Code of Academic Integrity, Regulation of the Evaluation of Learning Outcomes, Methodological Guidelines for the Development of Study and Final Theses, etc. – the teaching and learning guidelines are defined.

Enhancing the awareness of student-centered education and seeking more effective implementation solutions, a study was launched at the Department of Quality Technology in 2018 in order to identify factors that, in students' view, affect the quality of their studies. The research is carried out within the framework of a promotional thesis and more than 100 bachelor level students of FEEM participated. As a result of the research, three main factors were identified: the content of studies, the competence of the academic staff and the teaching and learning methods. These factors are given special attention in the study program "Total Quality Management".

Once every semester students evaluate the work of the academic staff by providing answers to a survey questions (in the ORTUS environment). Students evaluate the work of the academic staff, the content of the study courses, the sufficiency of theoretical knowledge for understanding and acquiring the material, individual tasks, the acquired practical skills, the attitude of the academic staff and cooperation with the students, the assessment methods and criteria, and other indicators. The questionnaires are anonymous. At the beginning of each study course, the teacher informs the students what changes have been made to the study course based on the recommendations and comments of the students of previous years, as well as the results of the survey. Each semester the study program director discusses with the students the factors that influence their opinion about the quality of studies; this procedure is described in the RTU Regulations for Academic Group Leaders. As a result of the discussions, the study program director proposes changes in the content and methods of the study courses (see also Section 2.6 for the impact of surveying and discussions).

**Full achievement of learning outcomes** is ensured in the study program. The learning outcomes are formulated at the level of the study program and study courses. At the beginning of each study course the learning outcomes to be achieved are discussed with the students and they can also read them in the ORTUS. As mentioned above, a link between the study program and the learning outcomes to be achieved is ensured. The interconnection of study courses and their succession in the study content acquisition is evaluated at least once a year and additionally in cases when suggestions are received from students. According to the learning outcomes of the study program, the content and volume of the study courses in credit points are formed, while according to the learning outcomes of the study course, the topics and their volume in hours are formed. The learning outcomes in all study courses are tested using appropriate assessment methods. Students have the opportunity to challenge the assessment of their study results – it is stipulated in the Regulations on the Assessment of Study Results (29/05/2017 Senate Decision, Minutes No.610).

The study program is supplemented and updated in the process of its implementation on the basis of labour market research and consultations with employers and practitioners. Recommendations from alumni, students and academic staff play an important role in improving the study process. (See also Section 2.6)

The study program is implemented in different study types and forms, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** type or form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students.

The pedagogical process involves a wide variety of **study methods**: individual and group work, individual and group consultations, presentations of results, project work, situation simulations (e.g., in risk assessment), tests, oral and written exams, field trips, discussions, etc. At the beginning of each study course, the teacher explains the purpose of the course, identifies the students' level of knowledge, their previous experience, expectations, and other relevant information. The academic staff and the students agree, as far as possible, on the study process, methods, assessment, etc. By combining teaching and learning methods, their relevance to different groups of students is ensured, and students with different needs are given the opportunity to acquire knowledge, skills and attitudes in the most appropriate way.

The study process is developed as an active, engaging process for the students and includes lectures, seminars, discussions, case studies and practical problem solving, individual and group work, including research work, company visits and field trips, internship, guest lectures by employer representatives. The pedagogical process uses the methods of acquiring knowledge, developing skills and abilities, as well as methods of applying knowledge and creativity. These methods are usually applied both when providing information and testing. This principle is reflected in the work of the academic staff in individual topics and throughout the whole course.

The academic staff organise students' cognitive activity in various ways – inductive (from individual to general), deductive (from general to individual), reproductive (formulating ready-made facts, evidence, putting emphasis on the main ideas), and often use the problem-finding method. Both monological approach is used – a student's independent activity and presentation of their point of view, as well as dialogical – student collaboration, and research – literature studies, case studies, simulations, seminars etc.

The academic staff use several ways of presenting information – verbal, visual and practical methods are used in the study process. Narration, presentation, brainstorming, discussions, role-plays (e.g., Six Thinking Hats) are often used to present and consolidate theoretical knowledge.



They combine elements of verbal and visual methods, whereas practical methods – case studies, exercises with a specific purpose, as well as intermediate tests – are more often used to enhance what has been learned. At the end of topics and study courses, knowledge-testing methods are used: tests, presentations as a synthesis of the acquired material, which allows the student to demonstrate the ability to focus on the goal (topic), select information, systematise it, explain it clearly and justify their opinion by answering questions.

Within the study courses, methods are chosen depending on the aim, content and learning outcomes. Many study courses use problem-based learning using brainstorming, group work, discussions, project work, etc. Active learning methods such as discussions, problem solving, case studies, online tests ([www.kahoot.com](http://www.kahoot.com), [www.mentimeter.com](http://www.mentimeter.com)), and field trips to companies are used to engage students in the study process.

Independent studies of students play an important role. The description of independent studies is included as a compulsory part in the study course description. Students' ability to learn independently is purposefully developed in all study courses. Students acquire research skills by regularly working with literature and internet resources in order to successfully develop a variety of study projects, internship reports and master's theses. In this way, students' research work and work with international scientific databases available in the RTU library with electronic access from the ORTUS environment is also promoted. During the study process, students have to develop study papers in "Quality Management", "Conformity Assessment" and Process Analysis and Management", which provide the opportunity to acquire research skills.

There is a strong focus on interactive learning methods, the main purpose of which is learning to learn, find information, use different sources of information, make judgements, work with others, make decisions and undertake responsibility. The cooperation here is both ways: student-teacher and teacher-student. For more information, see about teaching and learning methods in Section 4.5 and study course descriptions.

Here are some examples:

In the study course "CAQ Computer Aided Quality Control", students mostly work individually on a computer. However, there is also project work done by students in groups, studying and analysing situations. Project work is used to develop students' ability to design, monitor, manage and evaluate a process and its performance, to independently study, analyse situations, to make decisions and provide arguments, to make final conclusions – to evaluate the situation overall and its changes. In order to develop an understanding of the use of quality tools, the use of computer software, the ability to select and use the most appropriate data processing techniques, students study theory and do individual tasks and tests.

In the study course "Quality Audit" methods that allow creating an environment close to practice, incl. providing students with samples of different quality system forms, enabling students to use or adapt them creatively for assignments, group work in the classroom and group work in real organizations are actively used. Within the course students perform audits in real companies of different industries, summarize and explain the results of internal audits, independently prepare necessary documents for submission to the management of the company.

The course "Introduction to Quality Systems" simulates the development of a quality management system in a company: students choose the industry and sector in which the company works, mutually agree on the structure of the company, the division of responsibilities, define the main goals of the company, the management, operational and support processes, describe some of the processes, select critical processes, analyse risks, formulate preventive actions. They also play out one of the events / situations with the aim to develop a quality management action plan, e.g., to

implement a management decision to automate a process or to respond to customer complaints.

In the course “Metrology and Industrial Measurements”, the theoretical presentation of each topic is followed by discussions or independent work aimed at providing understanding. During the classes, theoretical knowledge on measurement is enhanced by making practical measurements using a variety of measuring tools. Depending on the type of measurement, they are done in the classroom or in a metrology laboratory. During practical classes, students acquire skills in making measurements and critical analysis of results. In order to verify students’ knowledge and skills, they are assigned individual work and group projects.

Within the framework of the study course “Basics of Quality Metrics”, methods are used with the aim to provide students with theoretical knowledge and practical skills on the parameters characterizing quality, methods of their analysis and their practical application. Following the presentation of the theoretical material, knowledge testing is carried out with each student performing an individual task, the results of which are presented and discussed. In order to enhance students’ understanding of the nature, content and expected results of technical observations and experiments, as well as their further usability, group work and analysis of work results in discussions is organized. Practical works are also carried out within the framework of the study course in order to promote students’ ability to use methods for analysing particular situations or events, as well as to evaluate and group events according to their significance. Students also take a comprehension test to ascertain their knowledge of the distribution laws in the assessment of random variables of process attributes.

As part of the course “Environmental Compatibility and Risk Analysis”, students do a comprehension test on the applicability of the ISO 14000 series standards and their relationship with ISO 9000 and EMAS systems. On topics such as risk, harm and hazard assessment, safety and sustainability increase, students do group work and present the results publicly.

The course “Quality Improvement Methods” involves an expert from the Business Efficiency Association (BEA) to help students understand current methods and learn how to use them in practice.

**Field trips**, where students have the opportunity to visit companies and laboratories, play an important role in this program.

In the autumn semester of the 2013/2014 academic year, the 3rd and 4th year students became acquainted with the work of the Scientific Institute of Food Safety, Animal Health and the Environment BIOR. In the spring semester, the 4th year students visited “Plockmatic Riga” Ltd., which produces finishing solutions – staplers, folders, binding solutions, and “Dailrade koks” Ltd in Vainode, one of the most modern furniture manufacturing companies. For example:

In the autumn semester of the 2014/2015 academic year, the 2nd year students were acquainted with the work of the certification body Bureau Veritas. In the spring, the 1st year students went on a field trip to “Plocmatic Riga” Ltd.

In the autumn semester of the 2015/2016 academic year, the 3rd and 4th year students visited the Laboratory of the Institute of Polymer Mechanics, University of Latvia. At the same institute, a class on the topic “Conformity Assessment” was held for the 2nd year students. The 3rd and 4th year students learned about practical work of the catering brand McDonalds in the course “Process Analysis and Management”. The main purpose of the trip was to introduce students to process management in a real company. The students had the opportunity to visit warehouses and see the principles of warehouse management as well as the kitchen, new technologies and processes, and also the principles of personnel management, incl. employee training, workload planning, goal setting, and various types of motivation. As part of the quality management course, the 2nd year

students visited “EuroMaint Rail”.

In the autumn semester of the 2016/2017 academic year, the 2nd year students got acquainted with the testing laboratories of the Institute of Energy Systems of Environment, Faculty of Power and Electronics, RTU.

In the autumn semester of the 2017/2018 academic year, the 4th year students got acquainted with the laboratories of the Department of Analytical Chemistry of the Faculty of Chemistry, the University of Latvia.

In the spring semester of the 2018/2019 academic year, the 1st year students participated in a practical course (testing a sample of plastic) at the Institute for Mechanics of Materials, the University of Latvia.

In the 2019/2020 academic year, student field trips to conformity assessment institutions: LATAK, metrology laboratories, “Latvian Standard” Ltd, etc. were organized.

Starting from the 2016/2017 academic year, every year in the spring semester, the 3rd year students have the opportunity to independently conduct internal audits under the supervision of their teacher in various companies, e.g., “Droša darba garants” Ltd, “Venden” Ltd, “Astra Logistic” Ltd, KS “Baltic vegetables”, Riga 1st Hospital and others.

For the evaluation of the knowledge acquired during the study courses, **a summative assessment approach is used**, determining the weight of each test. Evaluating all the works together, including the examination, provides an understanding of each student’s knowledge stability and understanding of the use of methods in data acquisition, processing, in statistical analysis, visualization and interpretation of results. For more information, see about teaching and learning methods in Section 4.5 and in study course descriptions.

Examination, group work, presentation, independent work and examination are chosen as the main assessment methods for achievement of the learning outcomes and aims of the study program. Tests provide an opportunity to gain confidence that the students understand the theoretical concepts discussed in the course and their applications. Group work enables students to demonstrate their comprehensive knowledge of the topics covered within the study program and to apply their knowledge in practice, to develop research skills, ability to work in a team, use correct terminology, and define and defend their views. Presentations give an opportunity to ascertain the students’ ability to gather and present the necessary information. Independent work gives an opportunity to ascertain the students’ ability to independently evaluate the obtained information, to systematize it and to carry out the necessary analysis, reflects the students’ level of knowledge and ability to work and analyse literature, it also facilitates academic writing. Examination gives the opportunity to verify the students’ acquired knowledge within the course.

Student achievements and course assessment results are discussed twice a year (after session results) at the KTK meetings. The results are summarised and evaluated by the program administration and serve as a basis for further improvement of the study process.

Mobility programs are becoming increasingly noticeable in the daily life of the university and intercultural communication opportunities grow. Students who come to FEEM within the framework of mobility are supported at the level of student self-government, study program and FEEM management. (See Section 2.7)

FEEM and RTU overall have a strong and transparent system **for developing the competence of the academic staff**. Several departments, including the HR, Science, International Relations, Studies, and Academic Excellence Centre regularly inform the staff about opportunities to develop their competencies in research, methodological and didactic skills, as well as general competencies

(foreign languages, information technology, public speaking and presentation skills, etc.) and specific competencies in the professional sphere. Information on the scientific activities of the academic staff is stored in the ORTUS environment. In order to carry out pedagogical work at a high level, methodological seminars are organized for RTU academic staff members on the possibilities of using different teaching methods, experience, good practice and sharing success stories. The head of the department conducts individual talks and these issues are discussed at the meetings of the department. Competence development activities are planned in the FEEM staff development plan and the department staff development plan.

FEEM organizes seminars for the academic staff and students, explaining the principles and implementation solutions of student-centered learning. The student-centered approach is implemented in everyday work: the academic staff members constantly improve the quality of study courses based on the latest trends and findings in the industry, and students' opinions, and at least twice a year the program administration consults with students on their satisfaction, expectations and evaluation of the quality of studies.

In order to comprehend the diversity of methods and apply them according to the situation and audience, the academic staff members develop their competence, incl. learning **innovative teaching methods**, reading specialized literature, attending seminars, conferences, professional development events organized for RTU teachers, sharing experience with other teachers in Latvia and abroad, discussing with other teachers the most appropriate and effective methods in a particular study situation, planning assessment of students' achievements within a specific framework of the study course. The latest teaching methods are acquired through seminars, courses and e-learning, courses "Psychological Aspects of Contemporary Education Management", "Conflict Management", "Psychological Aspects of Modern Pedagogy", "Stress Management" organized by the National Centre for Education.

The academic staff members of the program regularly improve the content of the study; the best study organization methods and principles are introduced in the study process. Consistency with the strategy for the development of the European Higher Education Area enables both the academic staff and students to be mobile and enrich their knowledge and experience at foreign higher education institutions, and also provides job opportunities in the rapidly changing international work environment. KTK takes over the best practice that students and academic staff members have gained during their mobility abroad. Foreign experience is integrated into the pedagogical process, facilitating the implementation and internationalization of student-centered education. The experience and insights of the academic staff are discussed both at the department meetings and in informal communication during daily work. For example, participation in the annual QMOD conference and the experience gained in interdisciplinary research teams have encouraged doctoral students with different research interests to work more actively on issues common to all – publications, methodology, methods, scientific theories, etc. All the academic staff members actively participate in the FEEM academic conference and scientific conference. For more information about the scientific activities of the academic staff, see Section 4.5 and the Study Direction Report.

The study environment and infrastructure of FEEM are tailored to **various needs of the student population**, maintaining the quality of the study process. The infrastructure is adjusted to fit the needs of disabled students. There is also differentiated support for various social groups of students, which can be received upon applying to RTU Student Parliament.

Students can find all current information on studies, types and conditions of support, entertainment and sports activities, as well as communication with groupmates and teachers of the study courses, including the opportunity to apply for consultations in the ORTUS environment.

Several factors together create a favourable **working and learning environment** that fosters the study quality, incl. linking the aforementioned study content with the labour market situation, positive trends in the quality management profession in Latvia and a wide range of job opportunities, student participation in study quality improvement, opportunity to be heard, receive various types of support, gain international experience, FEEM administration's positive attitude and willingness to constantly improve the content and methods of the studies and the provision of facilities, equipment and software in the time, volume and quality required for the studies. For more information, see Section 3.1 and the Study Direction Report.

A lot of resources are invested in promoting RTU students' **extracurricular activities** and healthy lifestyle. RTU offers students a number of extracurricular activities – from various artistic groups and interest clubs, such as the choir “Vivere”, orchestra “Bigbend”, folk dance ensemble “Vektors”, etc., to more than 20 kinds of sports where each student has an opportunity to be selected for the sports team of RTU. FEEM students most often join the choir “Vivere” and play in the women's basketball team.

The RTU Career Center very often hosts various seminars on personality development, education and global issues. FEEM students also attend these seminars. After one of these seminars, a student of the study program said that these seminars are a very good opportunity to gain a lot of knowledge about yourself, the possibilities around you and the problems and trends of the world. Lectures are delivered by knowledgeable professionals from different spheres whom otherwise a limited number of students would be able to hear due to the high entry fees. However, RTU offers these lectures to students free of charge. According to the students, this is an opportunity for students to talk to and ask questions to people whom otherwise they would not be able to meet in the next few years.

Each RTU faculty offers its students an opportunity to participate in the Student Council, which represents and defends students' interests, organizes various educational seminars, sports games and cultural events. This is a great place for students to learn how to develop communication and work skills. Whereas, if a student wishes to become a student representative not only at the level of their faculty, but also at the level of the entire university, they have the opportunity to become involved in the RTU Student Parliament.

There are a total of 85 students in the FEEM Student Council, 12 of them are the students of the study program “Total Quality Management”. 2 of them are master students, 10 of them are bachelor students. Of the bachelor students, 5 are first-year students, 4 are second-year students and 1 is a third-year student. Almost all of them also take part in RTU extracurricular activities: two of them sing in RTU choir “Vivere”, two students are active in RTU sports activities; one of them is in the RTU fans team. The students of the program “Total Quality Management” are also very active in representing students and FEEM views at the level of RTU. Three students are members of the RTU Constitutional Assembly, two of them are members of the FEEM Council and one is an RTU Senator. For extra-curricular activities, see also Study Direction Report and RTU website <https://www.rtu.lv/lv/ievf/studijas-ievf/arpusstudijas-1>)

Representatives of all study programs are active in the FEEM Student Council. With each study year, students become more responsible for their future and, as a result, their collaboration with the student self-government becomes broader, not only in their studies but also in their extracurricular activities.

#### **2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and**

**the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The internship tasks of the study program are closely related to the learning outcomes of the study program. Internship is a compulsory part of the professional bachelor's study program "Total Quality Management" with a volume of 26 CP.

Until 1 July 2019, internship was carried out in accordance with the procedure approved by the RTU Senate on 29 March 2010 (Minutes No.539) and according to the methodology developed by the structural unit implementing the study program. At the moment there is a new document **"Organization of Internship at Riga Technical University"** approved by the RTU Senate on 28 January, 2019 (Minutes No.626).

In accordance with the internship, procedure in the study program "Total Quality Management", there has been developed an internship program, which defines the internship tasks and describes the internship procedure. The internship program integrates the knowledge and skills to be acquired according to the professional standard, as well as guidance on how research conducted during internship has to be summarized in the internship report. In addition, there are "Formatting and Study Guidelines for Study and Graduate Papers" that help students to appropriately write and format the study papers, incl. the internship report.

The aim of the internship is to provide students with the opportunity to apply the theoretical knowledge acquired during their studies in the work environment of a particular organization, as well as to promote the cooperation of the educational institution with organizations.

The student according to their interests and potential job opportunities chooses the location of internship. However, if necessary, the student is assisted by the Department of Quality Technologies or the RTU Career Center. Internship in this field is often offered by companies looking for employees, as well as companies employing the study program graduates. The academic staff of the program closely cooperates with companies; graduates send information about job offers: State Construction Control Bureau of Latvia, Consumer Protection Center, Forta Prefab Ltd., National Blood Donor Center, E.Gulbja Laboratory, Emergency Medical Service, Rimi Latvia Ltd, Tilts Ltd, RTU departments, Riga Social Service etc. For many students, internship turns into their first job.

The bachelor's level students carry out internship in two stages: in the 3rd year of studies, 6th semester – 16 CP and in the 4th year, 8th semester – 10 CP. During internship, students apply the theoretical knowledge acquired during their studies in a real working environment in one of the Latvian or international organizations. The task of the students is to characterize the activities and development of the organization, to study the internal and external environment of the organization and to analyse the factors influencing this environment; to analyse the organizational structure, processes and their interaction, defining the process indicators, how they are measured, monitored and evaluated using quality management tools and methods. Students also analyse the quality system of the organization, exploring ways to improve it. By using one of the quality management methods, students analyse and evaluate the organizational risks associated with quality loss. During the internship, students also analyse and evaluate the economic performance indicators, quality costs and accounting in the organization, conduct an internal audit of the organization or evaluate the company according to EFQM, ISO 9004 or equivalent model.

During the internship, students summarize the results of their research in the internship report and

present them at the end of the internship. Students present their research results at the RTU Student Scientific Conference and integrate them in their bachelor's theses.

References and evaluation questionnaires completed by employers and internship supervisors demonstrate that students understand and are able to apply the requirements of the ISO family of standards and other normative documents related to quality management, are able to choose the most appropriate quality management tools and methods to identify business process non-compliances and potential risks, to prevent them and to improve the processes. Students have demonstrated their ability to independently conduct the organization's internal and external customer surveys and interviews, to summarize and analyse their results. Students have the necessary skills to carry out an internal audit of the organization's quality system and to summarize its results, to be able to find appropriate solutions for its improvement by applying effective quality management methods.

In the period from the 2013/2014 to the 2018/2019 academic year, students have completed their internship in 127 companies (see Study Direction Appendix "Internship Companies").

Internships are generally rated positively – from 7 (good) to 10 (with distinction). Employers and internship supervisors in companies have confirmed that the knowledge, practical abilities and skills acquired by students meet the professional requirements set by the professional standard.

Employers support students and are ready to give them the opportunity to develop their bachelor's theses research in their internship locations. Many students who have been able to demonstrate their knowledge, creativity and practical skills have received a permanent job offer at the internship company, such as Riga International Airport, Riga Social Service, "Latvian Standard" Ltd, Emergency Medical Service, Rimi Latvia Ltd, Forta PRO, TstDevLab, State Real Estate property etc.

The administration of the study program regularly updates the internship program and tasks in close cooperation with employers and internship supervisors in companies, as well as in line with the latest development trends in the fields of quality management and conformity assessment. Along with internship, the 3rd year students take the course "Quality Audit" and thus all the acquired knowledge can be practically applied in professional activities. During the 4th year, the students actively use the knowledge and skills acquired in the study course "Methods of Process Improvement" in their final internship and in elaboration of bachelor's theses.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

At the end of the program, students have to develop bachelor's theses that address current issues in quality management. Bachelor's theses are publicly defended with the State Examination Commission. The commission operates in accordance with the regulations approved by the RTU Senate; according to the requirements, the commission includes, as the majority, representatives of the labour market.

The bachelor's thesis is a serious research, which is developed according to the topic chosen by the student. At the student's choice, research within the bachelor's thesis is carried out in one of the thematic groups: Improvement of quality system, Improvement technical and technological processes, Non-conforming Product Control and Risk Assessment.

Students present their research papers at student conferences. Participation in the RTU scientific conference is compulsory for 4<sup>th</sup> year bachelor students.

In the 2014/2015 academic year, 14 students participated in the 56th RTU Student Scientific and Technical Conference, presenting their research results on the improvement of quality systems, process and quality in manufacturing and certification companies. Examples include “Improvement of Quality System in the State Emergency Medical Service”, “Improvement of Processes in the “Jēkabpils Optika” Ltd”, “and Application of Lean Six Sigma Methodology in the Certification Body of “Inspecta Latvia” JSC”.

In the 2015/2016 academic year, 4 students participated in the 57th RTU Student Scientific and Technical Conference, presenting their research results on quality system and process improvement in IT service and manufacturing companies. Examples include topics such as “Improvement of Quality System in the “Skonto Plan Ltd””, “Improvement of Manufacturing Process in the Factory “Lignums” of JSC “Latvijas Finieris”, “Improvement of IT Services Incident Control Process”.

In the 2016/2017 academic year, 58 students participated in the 58th RTU Student Scientific and Technical Conference, presenting their research results on the improvement of various processes, quality systems, customer services and non-compliant product management. Examples include: “Improvement of Safety Control Process in the Telecommunication Company”, “Natural Gas Supply Safety for the JSC “Latvenergo””, “Excellence Approach for Improvement of the Quality System in Riga Technical University”, “Reduction of Risks and Quality Costs in the “NM Construction” Ltd”, “Improvement of Non-conforming Product Control in the Food Production Company”.

In the 2017/2018 academic year, 12 students participated in the 59th RTU Student Scientific and Technical Conference, presenting their research results on the improvement of various processes, quality systems, non-compliant products and risk management. Examples include topics such as “Manufacturing Process Analysis and Improvement in the “Daugavpils Locomotive Repair Plant” JSC”, “Process Analysis and Improvement in the “TestDevLab” Ltd”, “Analysis and Improvement of Non-conforming Product Control System in the “Stenders” Ltd”, “Analysis and Improvement of Non-conforming Product Control System in the “Rimi Latvija” Ltd”, “Process Analysis and Improvement in the State Emergency Medical Service Operative Management Center”, “Evaluation and Improvement of Quality System in the “Latvian Standard” Ltd”, “Risk Assessment and Management in the RP SIA “Rīgas Satiksme””.

In the 2018/2019 academic year, 16 students participated in the 60th RTU Student Scientific and Technical Conference, presenting their research results on the improvement of various processes, quality systems, non-compliant products and risk management. Examples include topics such as “Manufacturing Process Analysis and Improvement in “Knifs Avu” Ltd”, “Manufacturing Process Analysis and Improvement in “Stenders” Ltd”, “Process Analysis and Improvement in “Medrego” Ltd”, “Process Analysis and Improvement in “UAV Factory” Ltd”, “Assessment and Accreditation of the Concrete Testing Laboratory Quality System”, “Improvement of the Independent Practice Supervision Process of the Construction Specialists in the State Construction Control Bureau of Latvia”, “Evaluation and Improvement of Quality System in “Smart Solutions Latvia” Ltd”.

During the reporting period from the 2013/2014 to the 2018/2019 academic year, the evaluation of the bachelor’s theses was mostly from 6 (almost good) to 10 (with distinction) on the 10-point scale; most students received grades ranging from 7 (good) to 9 (excellent) (see Figure “Grades of Final Theses”).



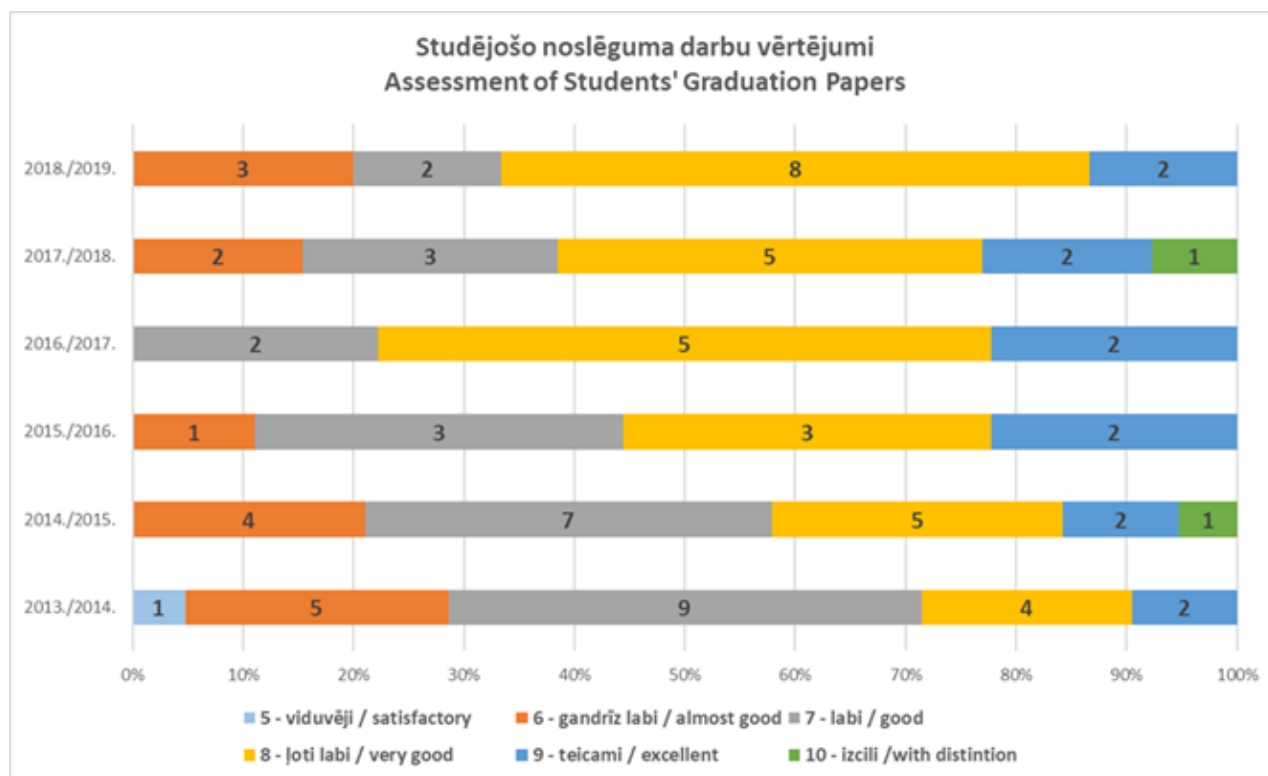


Figure. Grades of Final Theses

The State Examination Commission awards grade 10 (with distinction) only to students who in their work have carried out research outside the program requirements or whose research results have turned into a scientific publication. During the reporting period, two students received 10 (with distinction) for the following research works: "Improvement of Safety Control System in the State JSC "Riga International Airport"" and "Evaluation and Improvement of Quality System in the "Latvian Standard" Ltd"".

During the reporting period, 9 students received grade 9 (excellent) for the following research works: "Application of Lean Six Sigma Methodology in the Certification Body of "Inspecta Latvia" JSC", "Improvement of Manufacturing Process in the Factory "Lignums" of JSC "Latvijas Finieris"", "Improvement of Process Management in the Metalworking Department of Tilts" Ltd", "Excellence Approach for Improvement of the Quality Management System in Riga Technical University", "Process Analysis and Improvement in the State Emergency Medical Service Operative Management Center", "Automation Process Analysis and Improvement in the "Atea Global Services" Ltd Shared Service Center", "Process Analysis and Improvement in "UAV Factory" Ltd".

During the development of bachelor's theses (once a month) interim examination of bachelor's theses are organized in which students present the progress of their research. A commission composed of the program and industry representatives assesses student performance. If during the final testing (preliminary defence) of the bachelor's thesis the commission sees that a student has not fulfilled the requirements corresponding to the level of the bachelor's thesis, the student shall not be allowed to defend their bachelor's thesis. In this case, with the approval of the study program director and the commission, the student is given the opportunity to improve their performance and defend their work at the end of the next semester. Two months before the defence of the thesis, these students are given the opportunity to present the improved thesis, which is evaluated by the commission that decides whether it can be defended with the State Examination Commission.

In the professional bachelor's study program "Total Quality Management", the results of the students' knowledge assessment at the final examination are discussed twice a year at the KTK

meeting. The results are also summarized and evaluated by the program administration and serve as a basis for further improvement of the study process.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The results of student, employer and graduate surveys are used to improve the quality of the study program. The study quality monitoring and implementation system introduced by RTU in 2008 envisages regular electronic surveys of students on the content of studies and the quality of the academic staff through the ORTUS environment.

Student surveys are conducted every year after the autumn and spring semesters. The surveys include questions about the availability of study literature for each particular course, the teacher's criteria for student assessment, work culture and quality, respect for student rights during classes, time spent on student independent work and class discipline. The final part of the questionnaire is intended for students' suggestions and recommendations for the improvement of the course and the teacher's work quality. Questionnaires are filled in anonymously so that the answers given do not influence the attitude of the teacher to the particular student or group of students, and the target of obtaining an objective evaluation of students is achieved. The results of the questionnaire on the particular program are analysed and used to improve the quality of the program. The students themselves and the FEEM student council are actively involved in the processes of surveying and result analysis.

The student questionnaires are designed so that the students' answers help to evaluate the quality of the study courses and the academic staff, and also give the students an opportunity to express their opinion and make suggestions for improvement of the teacher's work and development of the course curriculum. Thus, each teacher has an opportunity to evaluate the results of their work and take measures to improve the quality of studies.

In general, the results of the student surveys on the work of the academic staff have been very positive, as from the maximum possible 5.0 points the average was above 4.0, in most cases it was above 4.4.

After RTU changed the evaluation of the academic staff to the scale of 100%, in the 2018/2019 academic year, in the spring semester, the academic staff members of the Department of Quality Technologies was evaluated. Analysing the submitted student questionnaires, the following results were obtained: two of the teachers received positive student ratings within the range of 78-83%, while five of the teachers received positive student ratings within the range of 87-94%. The professional and academic competence of the visiting teachers was also evaluated, with three out of four teachers receiving positive student ratings within the range of 75-82% and one visiting teacher received 90% positive assessment.

It can be concluded that students' assessment rates are high overall. The permanent academic staff members of the department have a higher student satisfaction rating. Student comments indicate that the work of the academic staff is adequate and there have been no student complaints in the 2017/2018 or the 2018/2019 academic years. The last mediocre grade was given in 2016 to one of the visiting teachers of the program, who was replaced by another teacher. Consequently, it was discovered that, when possible, it is necessary to plan activities for the development of

pedagogical competence also for the visiting teachers.

Students have highly valued the teachers who prepare their own teaching materials and / or handouts for the study courses. The main recommendations for the improvement of the study program from the students' point of view are to bring the contents of the lectures closer to the actual situation and developments, and to increase the number of study literature. Different numbers of students take part in surveys in the ORTUS environment on various study courses, so the obtained data should be evaluated with caution. The results of the students' questionnaires are analysed at the meetings of the study program administration, departments and institutes, involving, if necessary, representatives of the student self-government. Then the necessary improvements are made. For example, in the 2014/2015 academic year, the results of the student survey showed that there was a problem of some topics overlapping in the study courses. To eliminate this, in the methodological seminars of teachers the descriptions of the study courses were revised and appropriate changes were made to the study program as described in Section 2.1.

After the 2018/2019 academic year, based on the survey results and the students' recommendations, for example, in the course "Introduction to Quality Systems", theoretical and practical work, previously distributed evenly throughout the course, was changed as students suggested focusing more on theoretical activities in the first semester and on practical – in the second semester.

Every year a survey of program graduates is also conducted. The results of the surveys reflect the positive and negative aspects of the program implementation. The study program, its content, internship and benefits gained by the graduates are evaluated.

In 2014, the annual graduate survey was conducted, where 71% of graduates (15 of 21 graduates) filled in the questionnaires; in 2015 – 47% of graduates (9 of 19 graduates), in 2016 – 78% of graduates (7 of 9 graduates), in 2017 – 78% of graduates (7 of 9 graduates), in 2018 – 69% of graduates (9 of 13 graduates), in 2019 – 100% of graduates (15 graduates) (see Appendix 5 "Statistical data", Figure "Results of the Graduate Survey").

Students have positively evaluated the theoretical and practical skills acquired during their studies. During the reporting period, students mentioned the following recommendations for the program development:

- the need for more hands-on activities, real-world case studies;
- opportunities to learn foreign languages;
- to add more economic and business management study courses to the program;
- more training on the real introduction of a quality system in new or existing businesses;
- to revise the content of the courses, as the information provided in some courses overlaps with other courses;
- in the study process to attract more people who perform quality management duties on a daily basis in one of the companies in Latvia and abroad;
- to organize field trips to companies at least once a semester, starting with the first year, to give an insight into the theoretical and practical knowledge to be acquired in the coming years;
- to revise the logical chronological structure of the courses so as to make better use of the knowledge acquired in other courses (it refers to mathematics, physics, research methodology);
- to tell "success stories" that would motivate students to improve their knowledge and create a vision of career opportunities in quality management;
- to suggest internship locations where students can actually learn something;
- study courses such as physics, psychology, economics, ecology and material sciences are not

necessary in the study program as they have been acquired in the secondary school;

- more practical lessons, examples of real-world case studies, more opportunities to develop practical skills, complementing theoretical knowledge with insights into the approach of different companies to solving tasks discussed theoretically;
- more teachers who work in the field of quality in Latvia who can share their experience.

**All the aforementioned suggestions have been implemented and included in the study process;** the changes made into the program are also described in Section 2.1. Following the recommendations of the graduates of the previous study years, a study course “Quality Audit” was introduced, there students acquire the quality audit of organizations and practically perform it in a company, and it received very positive feedback in the survey: “...I liked teacher L.Salzemniece’s approach to the study process, where it was necessary to acquire theoretical basis and then perform a real audit of a company. This is the course which I remember best and which has given me most knowledge, therefore I can conclude that it was because of the practical learning opportunities...” Positive feedback was also received on process management courses: “... Anita Straujuma was also a very good example of conducting lectures; she involved students in the study process and taught theory with many practical examples from her experience...”

The question “How would you describe your university time in general?” received the following comments: “...the time spent at university gave me the opportunity to look at many things from a different perspective; it gave foundations for career development; it significantly broadened my horizons and knowledge; I met like-minded people; pleasant study environment; just like in life, at university I had to take both easier and more difficult courses, but I could manage; I would be happy to continue my studies at the master’s level...”

As it was mentioned above, all the results of the surveys are used by the program administration to improve the study process. The evaluation of the study process, the acquired knowledge and practical skills from the perspective of the graduates each year in a different aspect shows the necessity to revise the content of the study program and its implementation, which is regularly done. Improvement of students’ practical skills is still a current issue. It is necessary to take into consideration the fact that students’ practical skills at the end of their studies vary significantly according to their chosen internship and / or work experience in parallel to their studies. This issue needs to be addressed in the context of the development of professional bachelor’s study programs.

Compared by years, the evaluation of the program, the study process, the acquired knowledge and practical skills show that students highly appreciate all the improvements of the study process and its content as a result of the information obtained from the surveys of the previous study years. The satisfaction rates of the last year graduates improved. (See Appendix 5 “*Statistical data*”, Figure “Results of the Graduate Survey”).

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

The study program provides both incoming and outgoing mobility opportunities. To promote mobility, the RTU International Mobility Unit and the RTU Student Parliament organize information events on the mobility program in September and February. There the issues of scholarship competitions and other aspects to consider when planning mobility are explained in detail. Students

are also supported by the office manager of the program, who introduces them with the planned study courses and advises on the choice of the most suitable university.

Students share their experiences of mobility in the FEEM student self-government events and are encouraged to motivate others who have not yet tried mobility to use this opportunity. They tell them about the benefits, experiences in intercultural communication not available in your own country, about new learning and assessment experiences. At such events, students are happy to ask questions about extracurricular activities and daily life abroad.

The courses acquired during **mobility are fully recognized** – it is ensured by being careful in choosing a foreign university, study program and courses to study in collaboration with the program director and the office manager of the program.

The bachelor's level students are eager to use the opportunity to improve their knowledge at universities abroad. In the autumn semester of the 2013/2014 academic year, under the ERASMUS program one 3rd year student went to the Windesheim University of Applied Sciences in the Netherlands, where she studied such subjects as "Supply Chain Engineering", "Purchasing and Supply Chain Management", "Change Management Skills", "Introduction to the Dutch language" and "Strategy, Marketing and Trade".

In the autumn semester of the 2014/2015 academic year, under the ERASMUS+ program one 2nd year student went to the Brno University of Technology, the Czech Republic, where she studied such subjects as "Microeconomics", "Business Mathematics", "Total Quality Management", "International Marketing", "Strategic Management", "History, Culture and Economy of the Czech Republic".

In the autumn semester of the 2015/2016 academic year, under the ERASMUS+ program one 3rd year student went to the Windesheim University of Applied Sciences in the Netherlands, where she studied "Process Optimization Project", "Lean and Constraint Management", "Six Sigma", "Modelling", "Change Management" and "The Dutch language", "Windesheim University in the Netherlands". During the spring semester, a 3rd year student went on an ERASMUS internship to the Unit for Quality Assurance at the University of Vienna in Austria.

In the autumn semester of the 2016/2017 academic year, under the ERASMUS+ program one 3rd year student studied at Windesheim University of Applied Sciences in the Netherlands, where she studied "Process Optimization Project", "Lean and Constraint Management", "Six Sigma", "Modelling", "English for Erasmus", "Change Management", "Introductory Module on Windesheim and the Netherlands in an International Context", "Intercultural Understanding".

In the autumn semester of the 2016/2017 academic year, under the ERASMUS+ program one 4th year student went to the Windesheim University of Applied Sciences in the Netherlands, where he studied "Supply Chain Engineering (study project)", "Warehouse Management", "Introduction to Supply Chain Engineering", "Demand and Supply Integration", "Introductory Module on Windesheim and the Netherlands in the International Context", "Consulting skills".

In the spring semester of the 2017/2018 academic year, under the ERASMUS+ program one 2nd year student studied at the Brno University of Technology, the Czech Republic, where she acquired the courses "Applied Analytical Statistics", "Computer Design for Production, Logistics and Ecology", "Technological Design and Logistics" "Introduction to Material Science and Engineering", "History, Culture and Economics of the Czech Republic for Foreign Students", "Personnel Work in Small Businesses", "Introduction to the Czech Language".

In the spring semester of the 2018/2019 academic year, under the ERASMUS+ program one 2nd year student went to the Technical University of Cartagena, Spain, where he studied "Marketing",

### III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

Full information on these issues is provided in the Study Direction Report, Part II, Section 3, Criteria 3.1 to 3.3. This paragraph contains only additional separately highlighted information about the study program.

**RTU has a decentralized budget**, so each university unit has its own budget. A budget in general is a plan of revenue and expenditure for a specific period of time, work, event or function. The revenue and expenditure of RTU are administered in accordance with principles approved by the Senate or with the powers granted by Vice-Rector for Finance. Revenue may be divided into means allocated to the university unit for carrying out certain tasks for which it is responsible, such as consultancy services or organization of training, and means allocated to the unit as a result of calculations based on expected workload and / or performance indicators of previous periods (e.g., scientific support). RTU provides each head of unit with remote access to operational financial information on the unit's budget, including planned workload and funding to be allocated in subsequent periods for the implementation of the study programs and courses. The head of the unit plans the work of the unit at the beginning of each financial or budget year, including salaries for the academic staff who are subordinates to the particular head of the unit, and develops a procurement plan for the following year appropriate to the operation and development of the study program or course, etc.

The source of funding for the bachelor's study program “Total Quality Management” is both from the **state budget** and the **tuition fees** of persons. Initially, the program had 66 state budget places, but starting with student enrolment in 2017, the number of state funded places at RTU was reduced overall, incl. in this study program. Currently, the program has **56 state-funded places**.

The tuition fee has changed during the reporting period:

1. In the autumn semester of the 2013/2014 academic year, the full-time tuition fee was Ls 990.00 per year and the part-time tuition fee was Ls 640.00 per year. In the spring semester of the 2013/2014 academic year, the full-time tuition fee was EUR 1408.64 per year and the part-time tuition fee was EUR 910.64 per year.
2. For the 2014/2015 academic year, the full-time tuition fee was EUR 1600.00 per year and the part-time tuition fee was EUR 1000.00 per year.
3. For the 2015/2016 academic year, the full-time tuition fee was EUR 1550.00 per year and the part-time tuition fee was EUR 1100.00 per year.

4. For the 2016/2017 academic year, the full-time tuition fee was EUR 1550.00 per year and the part-time tuition fee was EUR 1100.00 per year.
5. For the 2017/2018 academic year, the full-time tuition fee was EUR 1600.00 per year and the part-time tuition fee was EUR 1100.00 per academic year.
6. For the 2018/2019 academic year, the full-time tuition fee was EUR 2100.00 per year and the part-time tuition fee was EUR 1100.00 per year.
7. For the 2019/2020 academic year, the full-time tuition fee is EUR 2150.00 per year and the part-time tuition fee is EUR 1200.00 per year.

Data regarding the amount and dynamics of the study program funding see in the Appendix 5 "Statistical data", figure and table "Study program funding".

The common study, science, informative (including library), material-technical and financial basis of FEEM and especially of the Department of Quality Technologies creates preconditions for the achievement of learning outcomes and indicates the possibility of ensuring a high quality study process in the future. For effective implementation of the study program, classrooms equipped with the latest generation of visual and audio equipment, which corresponds to the specifics of the study program and the conditions of its implementation, are available to the academic staff and students. Funding for one study place has increased in recent years.

In the period 2013-2019, for the bachelor's and master's study programs "Total Quality Management", the Department of Quality Technologies has purchased 4 new generation processors and two projectors to be used in the study process.

At the RTU **library** students have access to professional study literature, which is updated every year. During the reporting period, the following books were purchased specifically for the program, in addition to other library resources:

- Bergman, B., Klefsjo, B. "Quality, From Customer Needs to Customer Satisfaction" (15 copies),
- Douglas, C. Wood "Principles of Quality Costs" (15 copies),
- Babris, S., Kaļķis, H. et al. "Lean risinājumi efektīvākam biznesam" (Lean solutions for more efficient business) (10 copies),
- Thomas, S. Foster, Scott, E. Sampson, Scott, W. Webb "Managing Supply Chain and Operations: An Integrative Approach" (2 copies),
- Matthew, A. Barsalou "Root Cause Analysis: A Step-by-Step Guide to Using the Right Tool at the Right Time" (1 copy),
- John, S. Mithell "Operational Excellence: Journey to Creating Sustainable Value" (1 copy),
- James, W. Martin "Lean Six Sigma for Supply Chain Management: The 1-Step Solution Process" (2 copies),
- Latvijas Kvalitātes biedrība "EFQM izcilības modelis" (Latvian Quality Society "EFQM Excellence Model") (5 copies).

Besides, in the department, the following books are available to students and academic staff:

- Bergman, B., Klefsjo, B. "Quality, From Customer Needs to Customer Satisfaction" (10 copies),
- Thomas Foster, S. "Managing Quality. Integrating the Supply Chain" (1 copy),
- Juran Joseph, M. "Jurans Quality Handbook" (1 copy),
- Allen Theodore, T. "Introduction to Engineering Statistics and Six Sigma" (1 copy),
- Forrest, W. "Implementing Six Sigma" (1 copy),
- Jay, A. "Lean Six Sigma" (1 copy),
- Babris, S., Kaļķis, H. et al. "Lean risinājumi efektīvākam biznesam" (Lean solutions for more

efficient business) (3 copies),

- Caune, J., Dziedons, A. "Stratēģiskā vadīšana" (Strategic management) (5 copies),
- Hoff, K. G. "Biznesa ekonomika" (Business economics) (5 copies).

International databases are available to students on ORTUS: Web of Science, EBSCO, SCOPUS, SCIENCE DIRECT, SpringerLink full text journals and books, several databases and other information resources. The **"Latvia's Standards" Database** is available to students at the RTU Library. Students also have access to the state-of-the-art professional magazine **"Quality Progress"**, both in print and in electronic form, which has been received monthly from the American Society for Quality (ASQ) for several years.

FEEM has two computer classes **equipped with Minitab software**. The students of the program in these classrooms are studying practical classes within the courses "Quality Instrumental Computer Technologies" and "Quality Management".

FEEM has a Bloomberg laboratory with a very extensive database. It covers all global financial data, data about companies, securities, transactions, marketing activities and various taxes. Students have access to extensive real-time databases, research and analytical tools. The laboratory has 12 terminals that can be used by all RTU students and researchers. The students of the program have separate classes of the course "Resource and Quality Cost Analysis" there.

The RTU Design Factory has "theLAB", a workshop open to students, where they can materialize their inventions using the technological capabilities of 3D printing, laser cutting and engraving, plotting, large-format printing, and more. Meanwhile, FEEM has set up a Student Creative Laboratory where students can use the latest technologies to design their products. It is an opportunity for students to work and apply the acquired theoretical knowledge in practice. In the lab, students have access to a variety of tools, a 3D printer, and materials. There are workstations where students can turn their ideas into prototypes, or at least create workpieces. Later these can be developed further – in the RTU Design Factory. Students of the program have the opportunity to work in the FEEM Student Creative Laboratory and the RTU Design Factory within the framework of the study course "New Product Design and Development Methodology" to implement their ideas. Students also have access to study environments of other RTU faculties, for example, an accredited metrology laboratory is set up at RTU Faculty of Mechanical Engineering, Transport and Aeronautics, which students attend as part of the course "Metrology and Industrial Measurements". Within the framework of the study course "Physics" the students carry out practical work in the physics laboratory, while the practical work of the course "Mathematics (special course)" is carried out in a special computer class.

As already mentioned, the overall assessment of resources is reflected in the information provided in Study Direction Report Part II, Section 3, Criteria 3.1 to 3.3.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**



#### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Overall assessment of the academic staff is shown in the information provided in the Study Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. This section will highlight changes in the academic staff involved in the program and their competence in teaching specific courses.

The academic staff of the Department of Quality Technologies, teachers of other RTU departments and visiting lecturers are involved in the implementation of the bachelor's study program. Currently, the academic staff members elected by the FEEM Institute for Quality Engineering (RKI) and the Department of Quality Technologies (KTK) that are involved in the implementation of the study program are: Professor Dr.oec. Inga Lapiņa (the study program director), Professor Dr.sc.ing. Jānis Mazais, Dr.sc.ing. assistant professor Iveta Mežinska, assistant professor Dr.oec. Anita Straujuma, assistant professor Mg.oec. Jolanta Janauska, doctoral students and researchers Maija Kavosa and Irina Degtjarjova, doctoral students and assistant researchers Svetlana Mjakuškina and Aija Medne. During the reporting period there has been a positive trend in the study program – there is an increase in the number of academic staff with a doctor's degree and the number of academic staff studying at the doctoral level.

Academic staff members elected by other RTU departments are also involved: Professor Dr.oec. Elīna Gaile-Sarkane, associate professor Dr.math. Nataļja Budkina, assistant professor Dr.oec. Nadežda Semjonova, assistant professor Dr.oec. Ieva Andersone, assistant professor M.sc.edu. Līga Kamola, assistant professor M.sc.ing. Guntis Tribis, lecturer Mg.oec. Leonards Budņiks, assistant professor Mg.oec. Jānis Kuškins and others. As visiting teachers, there are several high-level professionals involved in the study process. Separate courses under the supervision of the responsible teachers are led by Baiba Drēgere-Vaivode, Jānis Miķelsons, Jānis Pildavs, Ingars Pilmanis, Armands Ploriņš and Liāna Salzerniece. Throughout the reporting period, guest lectures were conducted and / or final theses were reviewed by Jānis Černajs, Iveta Daugule, Guna Eglīte, Laila Keisele, Maira Sapata, and others.

In the study program “Total Quality Management”, regular measures are taken to positively influence the quality of the implementation of the study program and ensure the compliance of the study program with the requirements specified in the normative acts.

The academic staff members elected by RTU are responsible for the content and design of study courses. Under their guidance, there is a team of academic staff for the implementation of the study course, in which professionals, doctoral students and visiting teachers can be involved. The study program is mainly implemented by academic staff with appropriate education and in professional study courses – with professional expertise. The study program includes courses in which there were no changes of the academic staff during the reporting period until the 2019/2020 academic year, as well as study courses where staff changes have taken place.

The course “Total Quality Management” during the reporting period was implemented by two lecturers: from the 2013/2014 to the 2016/2017 academic year by Professor Dr.sc.ing. Jānis Mazais, but from 2017/2018 to date, by Armands Ploriņš technical expert of “Det Norske Veritas Latvia”. The change of teachers in this study course took place due to the increase of Professor Jānis Mazais' academic workload with foreign students at RTU, but at the same time, he is still the responsible teacher of the course, who ensures the improvement of the course content and methodology. Taking into consideration A.Ploriņš' more than 20 years of practical experience in

quality management, the change of the academic staff allowed to maintain the quality of studies and also ensured addition of more real-life practice examples to the study course content.

The course "Quality Management (Study Project)" was implemented by Professor Dr.sc.ing. Jānis Mazais. Professor J. Mazais is a leading professor in the department as well as a professional with more than 25 years of experience in quality management and academic work, who passes on his knowledge and practical experience to students within the framework of a research study course. Starting from the 2019/2020 academic year, doctoral student and researcher, M.sc.soc. Irina Degtjarjova has taken over the implementation of the course.

The course "Introduction to Quality Systems" from the 2013/2014 to the 2016/2017 academic year was conducted by Mg.oec. Jānis Pildavs, Director of the BA Business College. Doctoral student and researcher M.sc.soc. Irina Degtjarjova is currently implementing the course.

The courses "Process Analysis and Control" and "Process Management (Study Project)" is led by assistant professor Dr.oec Anita Straujuma, who defended her doctoral thesis a year ago and is now actively involved in industry activities, incl. working in the Business Effectiveness Association. Last year Anita Straujuma was nominated by the students for the FEEM Pride Award for her highly valued professional performance.

Assistant professor Dr.oec Nadežda Semjonova, who is also responsible teacher of the course, is implementing the courses "Quality Cost and Resource Analysis and Fundamentals of Finance". N.Semjonova has profound knowledge and significant professional experience in the field of finance; she participates in professional development events and provides students with current information in the respective study course.

The courses "Environmental Compatibility and Risk Analysis" and "Basics of Quality Metrics" during the reporting period were conducted by M.sc.ing. assistant professor Guntis Tribis. The teacher regularly improves his knowledge, works as an expert in risk assessment and management. The acquired knowledge and practical experience is passed on to the students during the study course.

During the reporting period, the course "CAQ Computer Aided Quality Control" is implemented by visiting teacher Mg.oec Jānis Pildavs, who has more than 20 years of academic experience in information technology, statistical methods and various quality management courses, as well as in the development of teaching materials in various international projects.

Associate professor Jānis Miķelsons, who has many years of professional experience in the field of conformity assessment, metrology and industrial measurement, conducted three courses in the field of conformity assessment, metrology and measurement. The acquired knowledge and practical experience were successfully transferred to the students. In the 2018/2019 academic year, the respective block of study courses was modified. Since the 2018/2019 academic year, the courses "Conformity Assessment" and "Conformity Assessment (Study Project)" under the supervision of the responsible teacher have been implemented by doctoral student and researcher of RTU, Master of Quality Management Maija Kavosa, Head of the Certification Department of the State Construction Control Bureau of Latvia (BVKB), who successfully integrates the knowledge acquired in research and practical work into the study course. Whereas, the course "Metrology and Industrial Measurements" is implemented by the experienced visiting assistant professor Jānis Pildavs.

During the reporting period, doctoral student and assistant researcher, Master of Quality Management Svetlana Mjakuškina, implemented the course "Market Surveillance". The teacher has significant experience working in the sector both in the Consumer Rights Protection Center and in managing the BVKB.

The course "Standardization" (until 2019 "Normative Documentation Systems") during the

reporting period was conducted by visiting assistant professor Mg.oec Ingars Pilmanis, head of "Latvian Standard" Ltd.

Visiting teacher, Master of Quality Management Baiba Drēgere-Vaivode, Lean expert at "Rimi Baltic", is implementing the course "Quality Improvement Methods". She is also an expert at the Business Efficiency Association (BEA), she helps students to understand current methods and learn how to use them in practice.

The course "Quality Audit" (until 2019 "Quality Assurance Methods") was implemented by visiting assistant professor Liāna Salzemniece, who as an auditor with great practical experience devotes more importance and time to mastering and practicing internal audit methodology in companies.

During the reporting period, assistant professor M.sc.edu Līga Kamola conducted the course "Introduction to Research". The teacher has a Master's Degree in education science and more than 10 years' experience teaching the course. During her doctoral studies, she has been constantly improving her knowledge and the study course promoting students' knowledge and understanding of research types and methods, data collection and analysis, evaluation and analysis of professional literature and scholarly articles, and students' ability to combine quantitative and qualitative research methods.

The course "Social Responsibility and Business Ethics" during the reporting period was conducted by program director, Professor Dr.oec. Inga Lapiņa, who is a leading teacher in this field, has gained her expertise by working on several projects and writing several publications on corporate social responsibility, sustainability and organizational culture issues in the last 10 years. The course has been conducted in cooperation with various guest lecturers, professionals of the industry.

Other departments of FEEM and RTU faculties are also involved in the implementation of the study program "Total Quality Management".

The general education courses "Civil Defence" and "Work Environment and Ergonomics" are implemented by the academic staff of the FEEM Institute of Occupational Safety and Civil Defence. Whereas, the course "New Product Design and Development Methodology" is implemented by the Department of Innovation and Business Management, FEEM.

The Field specific theoretical basic study courses and IT study are implemented by several units of RTU:

- the course "Mathematics" is implemented by the academic staff of Department of Engineering Mathematics, Faculty of Computer Science and Information Technology,
- the course "Mathematics (special course)" is implemented by the academic staff of Department of Probability Theory and Mathematical Statistics, Faculty of Computer Science and Information Technology,
- the course "Physics" is implemented by the academic staff of the Department of Materials Physics, Faculty of Materials Science and Applied Chemistry,
- the course "Business Data Analysis Technologies" is implemented by the academic staff of the Department of Innovation and Business Management, FEEM,
- the course "Economics" is implemented by the academic staff of the Department of the Territorial Development Management and Urban Economics, FEEM.

Part B, Section B.1 offers students two optional sections or directions: Mechanical Engineering and Transport, and Civil Engineering.

In the subdirection Mechanical Engineering and Transport, the Department of International Business, Transport Economic and Logistics of FEEM implementing the courses "Transport and Organization of Transportation ", " Risks and Insurance in Transport ", " Fundamentals of Logistics

”, “Organization of Traffic and Environment Protection” and “Supply Chain Management and Freight Forwarding. The academic staff of Department of Machine Building and Mechatronics, Faculty of Mechanical Engineering, Transport and Aeronautics implement the course “LEAN Manufacturing Technologies”.

In the subdirection “Civil engineering” the course “Building Materials” is implemented by the Department of Building Materials and Building Products, Faculty of Civil Engineering, “Construction Technology and Safety” by the Department of Heat Engineering and Technology, Faculty of Civil Engineering the courses “Energy Efficiency in House and Building Management”, “Innovations in Building Construction” and “Law on Construction and Rules on Construction” are implemented by the Department of the Civil Construction and Real Estate Economics and Management, FEEM.

In the direction “Humanities and social sciences” the course “Organizational Psychology” is implemented by the academic staff of the Department of Engineering Pedagogy and Psychology, Faculty of E-Learning Technologies and Humanities, the course Business Management is implemented by the teachers of the Department of Innovation and Business Management of FEEM, “Intercultural Communication” by the Department of International Business, Transport Economic and Logistics of FEEM, and the study courses “English” and “German” are conducted by the academic staff of the Faculty of E-Learning Technologies and Humanities.

Internship is coordinated and methodological support and consultations on the preparation of the internship report are provided by Master of Quality Management Assistant professor Jolanta Janauska.

The process of bachelor’s theses development is coordinated by responsible academic staff and scientific advisors Professor and lead researcher Dr.sc.ing. Jānis Mazais and Professor Dr.oec. Inga Lapiņa. Assistant professor Jolanta Janauska provides methodological support and consultations in formatting and preparing bachelor theses. Students work closely with their supervisors.

In several study courses, which are under the responsibility of the Department of Quality Technologies and which provide acquisition of quality management issues in the study program “Total Quality Management”, there have been no changes of the academic staff, which indicates the student satisfaction with the academic staff and also regular course updating. Teachers improve and change the content and methods of study courses every year on the basis of the recommendations received in the previous study year and the students’ involvement in class and independent work activities. There have been no complaints about academic staff and visiting academic staff from other departments over the past two years, and students have positively evaluated the work of the academic staff. For additional information on the academic staff, see the Study Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

Overall assessment of the academic staff is reflected in the information provided in the Study

Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. This section will highlight relevance of the qualifications and competences of the academic staff involved in the study program to teaching particular courses.

The qualification of the academic staff involved in the implementation of the study program fully complies with the study program implementation conditions and the requirements of the normative acts, ensures achievement of the aims of the study program and the respective study courses and learning outcomes (see CVs of the academic staff). Teachers elected by RTU, visiting teachers and leading specialists of the industry are involved in the implementation of the bachelor's study program "Total Quality Management". The academic staff members elected by RTU are responsible for the content and design of study courses. Usually a team of academic staff members works under the guidance of the head of the department and the teacher responsible for the implementation of the course, the team may involve professionals of the field, doctoral students and visiting teachers. In the bachelor's program, the responsible teachers for the courses are the academic staff members with appropriate education and / or professional experience. Academic staff members elected by RTU and visiting teachers with a master's degree and at least 5 years' experience in quality and process management, conformity assessment or risk management, who comply with the requirements of Article 39 of the Law on Higher Education Institutions, also participate in the implementation of the study program.

**Professor Inga Lapiņa** holds a PhD in Economics and a Master of Science in Education, she also has higher education in economics with a specialization in statistics; more than 23 years' experience in higher education: in study process management, research, quality assessment and international project management; she has participated in the education system development as an expert, researcher and project manager in more than 20 projects and studies, promoting interdisciplinary and inter-sectoral international cooperation and research with significant contribution to the improvement of Latvian education system. Since 2008, she has gained experience in more than 20 working groups of experts on evaluation of higher education institutions, study directions and study programs. Currently she works as Vice-Chair of the Study Quality Commission. She has participated in the higher education quality assessment events organized by the Higher Education Quality Agency of the Academic Information Center, and has given lectures and consultations at the Latvian Student Association seminars on the development and quality assurance of higher education. She has extensive international experience in quality assessment, including participation in expert groups of the Centre for Quality Assessment in Higher Education of Lithuania and International Quality Accreditation (IQA) CEEMAN. She has significant experience in Latvian and international organizations, she is a member of the Latvian Employers' Confederation in the Tripartite Cooperation Subcommittee, of Vocational Education and Employment, a member of the Council of Experts in Business, Finance, Accounting, Administration, a member of the Board of BMDA – Baltic Management Development Association and a representative of EQUAL – A Forum Around Quality Assurance. She is also a RTU representative in the working group of the CESAER – Conference of European Schools for Advanced Engineering Education and Research: Task Force Science and Technology Education for the 21st Century. I.Lapiņa is a representative of RTU in the American Society for Quality (ASQ), USA, and a representative of RTU FEEM in "Principles of Responsible Management Education – PRME", UN Initiative, USA. She acts as a representative in the Latvian Technical Committee for Standardization LVS/STK/10 "Quality Management and Quality Assurance", incl. issues related to the development and harmonization of terminology. In the 2109/2020 academic year, she was on internship at "Latvian Standard" Ltd.

**Professor Jānis Mazais** holds a PhD in technical sciences and a Master's Degree in business management, as well as higher education with the qualification of an electrical engineer.

Along with his academic, scientific and organizational activities, Professor is an active member of Latvian and global organizations promoting the implementation and development of quality standards, and is the Chair of the Accreditation Commission of the Latvian National Accreditation Bureau, Deputy Chair of the Latvian Technical Committee for Standardization LVS/STK/10 "Quality Management and Quality Assurance" of 'Latvian Standard' Ltd, RTU representative at the Latvian Quality Society, member of the American Society for Quality (ASQ) (since 1992). He has developed study courses in bachelor and master's study programs "Total Quality Management" (in the Latvian language), and courses in "Quality and Environmental Management" and "Quality Technology and Quality Management" (in English) in other RTU study programs, developing also the international reputation and internationalization of RTU. He participates in several European and global projects, for example, as one of the most significant in the period 2006-2010 was participation in the ASQ ISO-TC 176 International Study Group where a New Work Item Proposal – Justification Study was developed, and also developed the ANSI Z1.11 Document "Application of the ISO 9001 Quality Standard in Educational Organizations". The identification of the application of the ISO 9001 quality standard in educational institutions is a milestone in the integration and indexing of quality systems in the educational process in Latvia.

**Professor Elīna Gaile-Sarkane** holds a PhD in Economics, since 2000 has authored 130 scientific publications on topics such as strategic management, business models, innovation, using the electronic environment to promote business competitiveness, interdisciplinary methodology for business skills development etc. She is a teacher for bachelor, master and doctoral students in subjects related to marketing, strategic management of companies and innovations. Since 2005, each year she has been the winner of the "Annual Award for Teachers" or "RTU FEEM Pride", and has repeatedly been nominated for "RTU Best Teacher of the Year". She has participated in various projects, co-owns two patents: "a method for separating and spreading butter and similar substances and a device for carrying out the process" and "a holder for transporting wet paintings". Under her guidance, 5 doctoral theses have been defended. E.Gaile-Sarkane has been the manager or researcher of more than 20 international and national research projects.

**Assistant Professor Anita Straujuma** holds a Master's Degree in Computer Science, a Master's Degree in Business Administration (MBA) and a Doctor's Degree in Economics. She has professional experience working in IT industry for more than 10 years, participating in establishing and managing the leading medical software company in Latvia. She has more than 25 years of practical experience in managing non-governmental organizations, participating in international research projects and conferences, creating and developing a scientific journal, organizing international conferences and teaching experience in the field of economics. A.Straujuma's qualification helps to achieve high learning outcomes; the students are actively involved in the study process, introduced to new study methods in order to generate interest and to consolidate the acquired knowledge.

**Lead researcher Nadežda Semjonova** holds a PhD in Economics, she carries out research work and participates in international conferences, seminars and courses. Her practical and academic experience fully corresponds to the specifics of the study course. The acquired knowledge and skills are successfully integrated into the study courses, ensuring students' successful achievement of learning outcomes. N.Semjonova's qualification helps students to understand international and national normative acts regulating quality system costs, as well as related investment and operational costs, to choose and apply correct and effective mathematical methods in order to assess the current situation in Latvian or foreign companies, as well as to develop competence in preparing proposals for optimizing the costs of the quality system.

**Assistant Professor Ieva Andersone** has a PhD in Economics. She has more than 15 years of professional teaching experience as an assistant researcher, lecturer, assistant professor and researcher. Research component in her work with students is provided by participation in scientific

conferences and preparing publications. I.Andersone improves her knowledge by attending RTU pedagogical qualification improvement courses and FEEM academic conferences on integration of teaching methodological and scientific work in the study process. In addition, I.Andersone participates in various seminars, learns about the latest trends in the industry and innovative methods that are successfully used in her work with students.

**Assistant professor Guntis Tribis** holds a Master's degree in Engineering (Mg.sc.ing.) and a Master's Degree in quality assurance and management. His professional experience over a period of more than 25 years has been closely related to risk assessment of hazardous industrial sites and development of risk management proposals in the Republic of Latvia. He is a member of the Board of the Latvian Risk Management Association. Students learn about current issues in risk assessment and management and acquire practical skills in the field of industrial risk assessment. Through active work and the unity of theory and practice, the study process is designed in accordance with the principles of the student-centered approach. Academic knowledge and pedagogical competence and professional experience gained by G.Tribis ensure full achievement of learning outcomes.

**Assistant professor, candidate for a scientific degree Līga Kamola** holds a Master's Degree in Educational Sciences (Mg.edu.) and public management (Mg.oec.) at the University of Latvia, and has completed her PhD as a candidate for a scientific degree in the FEEM study program "Management Science and Economics", she is currently working on her doctoral thesis. In addition, she enhances her knowledge of the latest industry and scientific trends in various local and international courses, seminars, professional and scientific conferences. She has more than 10 years of teaching experience at RTU and has participated in several research projects. While developing her doctoral thesis, she has written scientific articles, developed her research skills. During the study process, working with students in group work, research projects and case studies she has developed students' skills in carrying out research and analysing results.

**Doctoral student and researcher Irina Degtjarjova** holds a Master's Degree in Education Management (M.sc.soc.), has completed her doctoral studies at the University of Latvia as an applicant for a scientific degree in management sciences, and continues her studies in the RTU doctoral program "Management Science and Economics". She has completed a professional development program in quality management; her professional experience related to working at higher education institutions is as follows: quality manager for more than 10 years, researcher, and participant in research and infrastructure projects. She works in the Latvian Quality Society and participates in seminars organized by the Business Efficiency Association, thus ensuring awareness of the current trends in the field, promoting the acquisition and sharing of methods, enabling her to gain and share experience, to transfer good practice, to provide students with information on topical issues and an opportunity to learn research and quality methods. The research component in the work with students is ensured by active doctoral studies, participation in scientific conferences and preparation of publications. Through active engagement and cognition, visibility, continuity, unity of theory and practice, as well as using scientific, accessible, systemic and consistent approach, she ensures that the study process is designed according to the principles of a student-centered approach. The achievement of learning outcomes is ensured by I.Degtjarjova's knowledge in the field of management science and pedagogical competence, as well as many years of practical experience.

**Doctoral student and researcher Maija Kavosa** holds a professional Master's Degree in Quality Management (Mg.oec.). She has experience working as a quality manager and head of a certification body for more than 3 years, is a researcher and participant in research projects commissioned by companies. The research component of her work includes active doctoral studies, participation in scientific conferences and preparing publications. Her professional activity in the field of conformity assessment, as well as participation in the expert committee of "Latvian

standard” Ltd on quality management and conformity assessment issues provides knowledge of the latest trends in the field, facilitates the acquisition and use of methods, allows gaining and sharing experience, as well as cooperation with conformity assessment bodies within the study process. Under her guidance, students learn topical issues related to the field of conformity assessment, methods used in the context of research and conformity assessment. Full achievement of learning outcomes is ensured both by M.Kavosa’s knowledge in quality management and practical experience in the field of conformity assessment.

**PhD student, assistant researcher Svetlana Mjakuškina** has a professional Master’s Degree in Total Quality Management. She has worked as Director of the Product and Services Safety Department of the Consumer Rights Protection Centre and since 2016 has been Head of the State Construction Control Bureau of Latvia. The research component in her work with students is ensured by her doctoral studies, participation in scientific conferences and seminars, and publications. Professional activity in the field of conformity assessment provides knowledge of the latest trends and professional development, which is passed on to the students during the study process. The students learn about the topicalities related to market surveillance, normative documents regulating market surveillance, and the methods used for monitoring and the determination of conformity. The achievement of full learning outcomes is ensured by S.Mjakuškina’s knowledge and professional experience in the field of conformity assessment.

**Associate professor Jānis Miķelsons** has higher education in Engineering – Mechanical Engineer in Production Process Automation and Complex Mechanization. He has 25 years of experience in quality management. J.Miķelsons has worked in the Ministry of Economics of the Republic of Latvia as Director of the Division of Standardization and Certification, since 1994, he has been the Director of the Latvian Accreditation Bureau and since 2004, he has been an associate professor in the program “Total Quality Management”. J.Miķelsons has extensive professional experience in the field of conformity assessment and metrology. He has participated in Latvian and international research projects, has been the leader of the development team of the Law “Conformity Assessment”, authorized representative of Latvia in the European co-operation for Accreditation (EA), member of the Latvian National Accreditation Council, member of the Latvian National Metrology Council, is active in the Latvian National Standardization Council and the Water and Gas Consumer Association, where he holds the position of Vice-President of the Association. The comprehensive knowledge and professional experience of J.Miķelsons has ensured high quality of studies in the courses “Industrial Measurements”, “Conformity Assessment” and “Testing and Certification” in the bachelor’s study program “Total Quality Management”. The experience of associate professor J.Miķelsons is efficiently taken over by doctoral student Maija Kavosa and assistant professor Jānis Pildavs.

**Visiting assistant professor Mg.oec. Ingars Pilmanis** holds a Master’s Degree in Business Management and has 15 years’ experience in the structural units of the Ministry of Economics of the Republic of Latvia: Project Manager of the Division of Standardization and Certification, Deputy Director of the Department of Quality Management and Structure Development, Director of Department of Construction. Since 2010 I.Pilmanis has been Head of the Bureau of Standardization of the Center for Standardization, Accreditation and Metrology (since 1 August 2017 – “Latvian Standard” Ltd). His membership in professional non-governmental organizations such as the Latvian Quality Society and the Technical Committee for Standardization ISO9000 and ISO14000, as well as participation in scientific conferences and seminars, provides him with knowledge of the latest trends and professional development. I.Pilmanis’ professional knowledge and experience in the field of standardization ensures achievement of high quality learning outcomes.

**Visiting assistant professor Armands Ploriņš** has a Master’s Degree in Management Sciences (Mg.oec.) from the Faculty of Economics and Management, University of Latvia. His professional



experience in quality management is 19 years; his current job is at the certification body “Det Norske Veritas, Latvia”, his field of expertise: technical expert in certification audits in the food industry, certification of management systems, conducting courses and seminars for quality managers of companies of different industries in Latvia and abroad. His professional experience and conducting courses and seminars provide knowledge of the latest industry trends. The acquired and accumulated versatile knowledge and practical experience in quality management is passed on to students, who acquire in-depth knowledge of the field and the most current trends in its development during the classes.

**Visiting assistant professor Jānis Pildavs** holds a Master’s Degree in quality management (Mg.oec.). He is a teacher of quality management courses with 20 years’ experience. The research component in his work with students is provided by regular reading of scientific and professional articles on quality management in scientific databases and professional periodicals such as “Quality Progress”, as well as keeping up with the latest industry development trends. Full achievement of learning outcomes is also ensured by his qualification as an engineer. He has experience in organizing company visits with the aim to gain practical experience in quality management by evaluating certified quality systems. He actively promotes implementation and research of quality management system based on the “Investors in Excellence” model at BA School of Business and Finance.

**Visiting teacher Baiba Drēgere-Vaivode** has a Master’s Degree in Total Quality Management. Her professional experience in quality management has been gained by working as Project Manager in Process and Project Management Department of the JSC “Citadele”, as Quality and Continuous Improvement Manager of Bigbank JSC and as Lean Expert of Rimi Baltic Ltd. After graduation, B.Drēgere-Vaivode has been purposefully improving her professional knowledge and skills and in 2018 received the Lean Six Sigma Black Belt Certificate. She successfully integrates the acquired knowledge and professional skills into the study course “Quality Improvement Methods” ensuring that students acquire professional competencies defined in the professional standard.

**Visiting assistant professor Liāna Salzemniece** holds a Master’s degree in Law and a qualification of a Senior Labour Protection Specialist from the Faculty of Chemistry of the University of Latvia. L.Salzemniece has many years of practical experience in performing quality audits and ensuring labour protection in various Latvian companies, and has been a lecturer in the quality field with more than 15 years of experience. During the classes, students are actively involved in practical activities, having the opportunity to apply theoretical knowledge and acquired methods in practice, in real companies.

**Assistant professor Jolanta Janauska** holds a Master’s degree in Quality Management (Mg.oec.). She has 19 years of work experience in the program “Total Quality Management”. She has participated in several research projects, developed scientific articles on the use of quality management methods to improve the study process. She continues enhancing her professional knowledge and skills by attending seminars and conferences organized by RTU, as well as seminars and conferences outside RTU. The acquired knowledge and skills are used in the study work, coordinating the students’ internship, as well as offering methodological consultations to students in the preparation of internship reports and final theses.

Each year, **guest lectures of both Latvian and foreign lecturers and industry professionals** are organized as a compulsory part of the study process. For example, in the 2013/2014 academic year, visiting teacher Andrius Rakickas from Siauliai University (Lithuania) participated in the study course “Process Analysis and Control” and taught “Teaching business simulation model”; Visiting Professor Piotr Grudowski from Gdansk University of Technology (Poland) with a lecture “Principles of quality management” participated in the course “Total Quality Management”.

In the 2014/2015 academic year, students attended the lecture “Cultural dimensions diversity management” by visiting teacher Silke Buhl from Dresden University of Applied Sciences (Germany); visiting teacher Jose Mira from Miguel Hernandez University Elche (Spain) joined the study course “Total Quality Management” with a lecture “Quality assurance at higher education institutions in Spain”; visiting teacher Eva Slaichova from the Technical University of Liberec (the Czech Republic) delivered a lecture “Lean methods in production system” within the study course “Total Quality Management”. Ieva Kļavinska-Ķude, Head of Quality at RIMI, delivered a guest lecture on “Practices in Rimi – quality requirements and implementation”. During their internship, students listened to visiting teacher Ingo Gestring of the Dresden University of Applied Sciences (Germany) delivering a lecture on “The automotive industry of Volkswagen and BMW in Germany” and “Strategic automotive management, a business game”.

In the 2015/2016 academic year Ieva Kustova, Head of Communication and Cooperative Social Responsibility Policy at the Employers’ Confederation of Latvia, spoke on “The role of employers’ organizations in shaping the business environment and representing the interests of entrepreneurs”, and the expert of national economy Jānis Hermanis gave a lecture on “The analysis of business competitiveness in the Baltic and European context”. Visiting teacher from the Czech Republic Eliška Jiraskova participated in the study course “Total Quality Management” with a lecture “Latvia vs. Czech Republic – Business and Services”; visiting Professor Henkjan ten Zijthoff (Netherlands) delivered a lecture on “Human resource management and change management between the Netherlands and Latvia”.

In the 2016/2017 academic year, guest lectures were held in the course “Fundamentals of Logistics” by visiting Professor Tauno Jokinen from Oulu University of Applied Science (Finland). The topics of the lectures were “Basics of logistics”, “Purchasing and subcontracting” and “Production logistics”. Daina Sproģe, Head of Standardization Department of “Latvian Standard” Ltd and Sarmīte Morica, Head of Standards Funds Department of “Latvian Standard” Ltd participated in the course “Normative Document Systems”.

In the academic year 2017/2018 students had the opportunity to attend a guest lecture on the topic “Business Plan Preparation and Evaluation” by Lidiya Kraujaliene, Director of Strategic Planning, Quality Management and Analysis Centre, Vilnius Gediminas Technical University (Lithuania), and a guest lecture “Quality Management System at Siauliai University: Requirements and Implementation” by visiting Professor Renata Bilbokaite from Šiauliai University (Lithuania) within the study course “Introduction to Quality Systems”.

In the 2018/2019 academic year, visiting teacher Silke Buhl from Dresden University of Applied Sciences (Germany) delivered a lecture on “Intercultural Theories”.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation**

**of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Overall assessment of the academic staff is reflected in the information provided in the Study Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. For more information about the study process and student involvement in research, see Section 2.5.

The academic staff members of the study program, both at national and international level, are engaged in scientific research in the field of quality management and conformity assessment, and the acquired information and experience are integrated into the study process.

The research areas of RTU FEEM Department of Quality Technologies are: quality technologies, systems, process management, risk and conformity assessment and others. Through continuous improvement and a process approach, the organization creates an environment where processes, products and services meet customer requirements and needs, are safe to use, create value for society and the environment. Quality management is part of the management process of any modern organization that contributes to customer satisfaction, which ensures long-term success and effective and efficient operation of the organization, therefore research in this area is integrated into multidisciplinary cross-sectoral research. **The research is closely linked to the implemented study programs at the bachelor and master's level**, as well as the doctoral studies of the department. For example:

- Quality of systems, technologies and processes (Professor and leading researcher J. Mazais, Assistant Professor and leading researcher I. Mežinska).
- Quality and process management, sustainability and social responsibility, knowledge management (Professor and leading researcher I. Lapiņa, Assistant Professor and researcher A. Straujuma, doctoral student and assistant researcher A. Medne).
- Integrated management systems and standardization (Assistant Professor and leading researcher I. Mežinska, doctoral student and assistant researcher A. Pīlēna).
- Education quality and labour market demand-based competences, human and intellectual capital (Professor I. Lapiņa, Assistant Professor J. Janauska, doctoral student and assistant researcher T. Ņikitina).
- Measurement accuracy/uncertainty, conformity assessment, risk management (Associate Professor J. Miķelsons, doctoral student and researcher M. Kavosa, assistant researcher S. Mjakuškina).
- Organizational and quality culture in the context of organizational life cycle (Professor I. Lapiņa, doctoral student I. Kairiša).
- Market surveillance and certification: improvement solutions in Latvia and the European Union (Professor I. Lapiņa, doctoral student and assistant researcher S. Mjakuškina, doctoral

student and researcher M. Kavosa).

Project results have a significant impact on the study programs as research results and findings are integrated into study courses. The projects mainly involve the academic staff and doctoral students most of whom prepare and lead study courses. Participation in projects allows doctoral students and researchers to provide students and others involved in scientific research with new and up-to-date knowledge. It helps to develop the ability to independently and critically analyse the results of the projects and the developed solutions which can be used in the respective fields of research to solve important tasks and to create and manage independent projects.

Students acquire research skills by regularly working with literature, various scientific databases, and Internet resources to successfully develop study papers, internship reports, and bachelor's theses. A bachelor's thesis is a serious research that is developed as an applicable solution to a current problem based on research in a particular company or field. As mentioned in Section 2, students present their research results at student conferences.

**Research is integrated into the study process.** This interaction is complemented and updated by labour market research and consultations with employers and practitioners. The changes are mainly focused on contemporary and applied research. The process of research and studies is organized in such a way that the topics of students' study and research work cover current issues of quality and process management, continuous improvement technology, risk and conformity assessment.

For example, to ensure international research, since 2014, every year Professor Inga Lapiņa and her colleagues and doctoral students have been participating in QMOD-ICQSS (Quality Management and Organisational Development / an International Conference on Quality and Service Sciences) conference, which has become one of the largest scientific conferences in the world in the areas of quality, service, organizational development and related issues. Starting from 2016, KTK assistant researchers and doctoral students Svetlana Mjakuškina, Maija Kavosa, Irina Degtjarjova and Aija Medne, as well as Assistant professor Anita Straujuma have presented at the conference.

In 2016, Professor Inga Lapiņa chaired the section on "Quality in Higher Education" at the QMOD-ICQSS Conference "Building a Culture for Quality, Innovation and Sustainability" in Rome, Italy. Three scientific publications by KTK representatives were presented at the conference:

- Meiers-Meiris, I., Mazais, J., Lapina, I. "Effect of Management System Integration on Company Performance in Energy Industry of Latvia".
- Kavosa, M., Lapiņa, I., Briņķis, K. "The Evaluation of Certification in the Field of Energy Construction in Latvia".
- Straujuma, A., Ozoliņš, M., Lapiņa, I., Gaile-Sarkane, E., and Stensaker, B. "The Role of Regulatory Compliance Governance in Strategic Management of Higher Education and Research Institutions".

At the 2017 QMOD-ICQSS Conference "Challenges and Opportunities of Quality in the 4th Industrial Revolution" held in Helsingør, Denmark, Professor Inga Lapiņa chaired the ISO 9000 Quality Management System section, receiving a special thank you for her contribution to the conference development, as she had been participating in the work of the Scientific Committee of the Conference reviewing articles and chairing sections since 2014. Three scientific publications by KTK representatives were presented at the conference:

- Imants Meiers-Meiris, Jānis Mazais, Inga Lapiņa "Risk management framework for Integrated Management Systems";
- Svetlana Mjakuškina, Inga Lapiņa "The Product Conformity Assessment Elements in the Integrated Management System";

- Maija Kavosa, Inga Lapiņa "Certification Process in the Field of Energy Construction in Latvia: Risk Analysis".

At the 2018 QMOD-ICQSS Conference "The Quality Movement – where are we going?" held in Cardiff, United Kingdom, Professor Inga Lapiņa chaired a section on "Gamification, Motivation, Performance; Leadership, Job Satisfaction, CSR; CIP". Four scientific publications by KTK representatives were presented at the conference:

- Maija Kavosa, Inga Lapiņa "Certification Process: Conformity Assessment or Professional Competence Assessment?";
- Svetlana Mjakuškina, Maija Kavosa, Inga Lapiņa "The Analysis of Supervision Process in the Field of Construction: Case in Latvia";
- Aija Medne, Inga Lapiņa "EFQM Excellence Model Towards Sustainability of University's Quality System";
- Irina Degtjarjova, Inga Lapiņa "Students as the Stakeholders' Perception of the Quality of Higher Education".

At the 2019 QMOD-ICQSS conference "Leadership and Strategies for Quality, Sustainability and Innovation in the 4th Industrial Revolution" held in Krakow, Poland, Professor Inga Lapiņa chaired the section "Quality Management Systems, Weight of Standards, Performance". Three scientific publications by KTK representatives were presented at the conference:

- Maija Kavosa, Inga Lapiņa "Professional competence assessment analysis in the certification process through Value Stream Mapping: A case study in the construction sphere";
- Aija Medne, Inga Lapiņa, Artūrs Zeps "University Quality System Development: KPIs for Strategy Evaluation";
- Irina Degtjarjova, Jolanta Janauska, Inga Lapiņa, Jānis Mazais, and Jānis Pildavs "Quality Assessment of Study Program: Application of Quality Function Deployment Methodology".

Since 2011, the academic staff involved in the program regularly participate in the International Scientific Conference "The World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI", Orlando, United States. In total, during these years, 15 articles by the academic staff involved in the study program were presented at the conference. All the publications can be found in the list of publications and the CVs of the teachers.

It should be noted that in July 2017, at the International Scientific Conference "The 21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017" in Orlando, USA, the section of RTU FEEM was organized by professor E. Gaile-Sarkane and professor I. Lapiņa, and the academic staff members of the study program participated with publications of various research results. In the conference section "Transformation of Education and Research: Applicability and Sustainability", the results of the European Economic Area Financial Mechanism and Norwegian Financial Mechanism Program Project No. NFI/R/2014/006 "EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia", as well as Lifelong Learning Programme Transfer of Innovation, Multilateral Projects, Leonardo da Vinci project "Employability and Skills Anticipation Policies: a Social ROI Approach", Erasmus+ Key Action 2 "Cooperation for innovation and the exchange of good practices" strategic Partnership project "Coaches of SMEs: 5POINTS Trainings", Erasmus+ Key Action 2 "Cooperation for innovation and the exchange of good practices" strategic Partnership project "Innovative strategic partnership for European higher education" were presented.

The work of the conference section focused specifically on wider dissemination of the results of several projects and the department researchers also presented three articles:

- Tatjana Nikitina, Inga Lapiņa "Overview of Trends and Developments in Business Education"

- Anita Straujuma, Inga Lapiņa, Elīna Gaile-Sarkane, Modris Ozoliņš “Policies, Legislation and Regulatory Compliance Governance Impact on Strategic Management of Higher Education and Research Institutions in Latvia”
- Inga Lapiņa, Deniss Ščeuļovs, Elīna Gaile-Sarkane, Mikus Dubickis, Tatjana Ņikitina “Contemporary Study Process for Enhancement of Employability in the Dynamic Environment”.

The article by Anita Straujuma, Inga Lapiņa, Elīna Gaile-Sarkane, and Modris Ozoliņš received the nomination “Session’s Best Paper Award” in the section.

**Research is integrated into the study process.** This interaction is complemented and updated by labour market research and consultations with employers and practitioners. The changes are mainly focused on contemporary and applied research. The process of research and studies is organized in such a way that the topics of students’ study and research work cover current issues of quality and process management, continuous improvement technology, risk and conformity assessment.

Examples of the research activities of academic staff:

**Jānis Mazais** is a member of the editorial board of the international scientific journal “Research on Enterprise in Modern Economy” (Gdansk University of Technology) and a member of the editorial board of the international scientific journal “Journal for Sustainable Development” (Skopje, Republic of North Macedonia). He has participated in international scientific conferences, published articles in internationally cited editions, and has been participating in organizational activities. Professor has many years of scientific experience in the field of quality management, incl. in the beginnings of quality management in Latvia. He is still active in research, and research work is one of the compulsory components of the study courses he leads. The professor has prepared two chapters: “Quality Assurance” and “Quality and Service Awards, Russia”, for the international encyclopaedia “The SAGE Encyclopaedia of Quality and Service Economy”, edited by Professor Su Mi Dahlggaard-Park, published by: California, Thousand Oaks: SAGE Publications, Inc., 2015.

**Inga Lapiņa** is a member of the editorial board and reviewer of the “International Journal of Quality and Service Sciences” (indexed in the Scopus and Web of Science databases), reviewer of the international scientific journal “Total Quality Management & Business Excellence” (indexed in the Scopus and Web of Science Databases), reviewer of the international journal of scientific articles “Journal of Cleaner Production” (indexed in the Scopus and Web of Science databases), member of the Scientific Committee and Section Chair of the Conference on Quality Management and Organizational Development – QMOD. Her scientific activities, closely linked with her pedagogical and research expertise, contribute to the growth of students both in her study courses, in supervising bachelor and master’s theses, and in acting as program director.

**Professor Elīna Gaile-Sarkane** has academic and scientific experience of more than 20 years at a higher education institution. In addition to her PhD in Economics, professor also holds a Bachelor’s Degree in Science in Engineering (Bachelor of Science in Chemical Industry), providing an excellent foundation for academic and research work on innovation, management, and entrepreneurship, so her research focuses on interdisciplinary areas, covering management science, innovation management, technology transfer and various aspects of entrepreneurship. Professor Gaile-Sarkane has over 150 scientific publications in management, economics and related fields. More than 35 of them have been published in internationally recognized publications or conferences with indexing in international databases (e.g., Thomson and Reuter, Scopus, EBSCO, etc.). Professor Gaile-Sarkane is the author and / or co-author of 4 course books, 3 monographs, and 1 patent. Under her guidance, four Doctors in Economics have defended their theses. Professor Gaile-Sarkane is a member of RTU Promotion Council P-09, Expert of the Latvian Council of Science, Expert of the

Czech Science Foundation, member of many international organizations, member of the Joint Professor Council in Management and Economics Sciences of "RISEBA" University of Business, Arts and Technology, BA School of Business and Finance and Ventspils University College.

**Anita Straujuma's** research activities include knowledge management, especially collaboration with graduates in the context of customer knowledge management. A. Straujuma has been involved in the organization of the international conference "ICARe ALUMNI" since its foundation. Each year the conference brings together professionals and researchers from more than 23 countries, who present their scientific publications, and a collection of articles is published. The experience and information gained is used in the study process, in student training, in developing their practical experience and in testing their knowledge, using contemporary methods that include online tools and other IT solutions.

**Nadežda Semjonova** is currently working on the European Regional Development Fund Operational Programme "Growth and Employment", specific support objective 1.1.1. "To increase the research and innovation capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure", the activity 1.1.1.2. "Post-doctoral research support" (No. 1.1.1.2/VIAA/2/18/343) and is implementing the project "Methodology for commercialization of innovative biomedical devices and evaluation of production financing model" which is directly related to product quality cost management. Within the framework of the project, N. Semjonova cooperates with other European higher education institutions and with the Association of Manufacturers and Suppliers of Medical Devices of Latvia. It enables her to take over good practice, to ensure coherence between theory and practice, and to gain and share experience on current issues in the field.

**Ieva Andersone's** scientific work is focused on research of marketing aspects: changes in consumer behaviour, regional retail development, and taking marketing decisions in the context of generations. The research results are summarized in publications. I. Andersone has participated in several projects. Participation in the ERASMUS project "Framework of Organising Studies Entrepreneurially" has contributed to the development of student entrepreneurial skills. The research component in the work with students is also provided by I. Andersone's participation in scientific conferences, seminars on new product creation and development methodology, cultural diversity and generational marketing. The knowledge and experience gained have helped her to be updated on the latest trends in the industry and have facilitated the acquisition of new methods that are being integrated into study courses.

**Assistant professor, applicant for a scientific degree Līga Kamola** holds a Master's Degree in Educational Sciences (Mg.edu.) and in Public Management (Mg.oec.) awarded by the University of Latvia, and has completed her PhD as an applicant for a scientific degree in the FEEM study program "Management Science and Economics"; she is currently working on her doctoral thesis. In addition, she enhances her knowledge of the latest industry and scientific trends in various local and international courses, seminars, professional and scientific conferences. She has more than 10 years of teaching experience at RTU and has participated in several research projects. While developing her doctoral thesis, she has written scientific articles, developed her research skills. During the study process, working with students in group work, research projects and case studies she has developed students' skills in carrying out research and analysing results. L. Kamola participated in the working group of the European Social Fund project "Evaluation of Higher Education Study Programs and Proposals for Quality Improvement" Agreement No. 2011/0012/1DP/1.1.2.2.1/11/IPIA/VIAA/001. She has participated in several RTU projects, for example, "Development of Performance Measurement System for Latvian Small Businesses", "Analysis and Evaluation of Factors Affecting Sustainable Development of Latvian Small and Medium Enterprises", etc. In addition, attending a variety of local and international courses,

seminars, professional and scientific conferences enhance L.Kamola's knowledge of the latest trends in the industry and science. Her membership in the Industrial Engineering and Operations Management Society (IEOM) "Achieving and Sustaining Operational Excellence" provides her with current information and opportunities for scientific cooperation.

Doctoral students **Maija Kavosa** and **Svetlana Mjakuškina**, who are involved in the implementation of the study program, actively cooperate in both research and pedagogical fields. Co-operation with conformity assessment bodies provides an opportunity to attract relevant professionals as guest lecturers, as well as for students to go and have classes in the appropriate conformity assessment bodies. Individual and group work is organized to provide students with knowledge and understanding of the conformity assessment of products, processes, persons and management systems in accordance with the requirements of international standards and regulations. Within the framework of the study program, students explore and analyse the situation in a particular field of conformity assessment, developing solutions to a particular problem related to conformity assessment and making proposals for improvement of the conformity assessment system. The research carried out within their doctoral theses ensures updating and improvement of the topics included in the study program in order to develop master students' understanding of the conditions of conformity assessment procedure application, developing their professional terminology usage skills, and stimulating discussions regarding the development of improvement proposals for possible conformity assessment activities.

Doctoral student **Irina Degtjarjova's** research activity is related to quality in higher education and the implementation of a student-centered approach. It is directly related to the study process: students are involved in content development – through personal experience, new approaches to content acquisition; diverse teaching and learning methods are selected according to the learning situation and the needs of the group; the study environment is active, cooperative. Quality management issues also include quality aspects of higher education. The research carried out within the framework of her doctoral thesis (survey on factors influencing the quality of studies, research on students' expectations and perceptions on the quality of the study process) has helped I.Degtjarjova to identify the strengths of the study program and opportunities for its improvement. Her research results were presented and discussed at international conferences: quality of education in the stakeholder theory aspect – at Vilnius Gediminas Technical University (Lithuania), students' expectations and perceptions of education quality – at QMOD conference, education quality factors – at FEEM conference.

**Jānis Miķelsons** has many years of scientific experience in the field of conformity assessment. He has participated in a number of international projects, and has participated and presented at international conferences on the new approach to regulatory conformity assessment and re-verification of measuring instruments, as well as the EA and ILAC Policy on Traceability of Measurement Results. J.Miķelsons is active in the Latvian Water and Gas Consumer Association and carries out significant practical research on the improvement of water consumption conformity assessment in public utilities. He has presented at international conferences organized in Latvia and abroad, and his research results have been published in conference proceedings.

The academic staff members of the department actively participate in the research work of FEEM and in the promotion of international cooperation. RKI and the KTK participate in the implementation of various European Union projects in cooperation with other institutes of the Faculty. For example, below are some of the projects implemented at the institute and the department:

From 2012 to 2014, the RKI together with colleagues from FEEM and with partners Universidade Católica Portuguesa (Portugal), Centro de Estudos dos Povos e Culturas de Expressão Portuguesa



(Portugal), Centro de Formação Profissional Para o Comércio e Afins – CECOIA (Portugal), Fundación Metal Asturias (Spain), Tempo Training & Consulting a.s. – TEMPO (Czech Republic) and SROI Network – Social Return on Investment Network Ltd. (United Kingdom) implemented an Innovation Transfer Project No.12011-1-PT1-LEO05-08605 “Employability and Skills Anticipation Policies: a Social ROI Approach” of the EU Lifelong Learning Program Leonardo da Vinci. The aim of the project was to assess the return on investment in active employment and vocational training policy and to facilitate the participation of various stakeholders in the analysis of current and future labour market requirements, both at local and regional level and from a sectoral perspective. The results of the project will facilitate reflection on the recognition of employability skills and dissemination of employment solutions at the European, national and local government levels.

From 2015 to 2016, RKI together with colleagues from FEEM and together with the Institute of Integrated Business (Macedonia, project coordinator), the University of Pavia (Italy), the University of Ljubljana (Slovenia) and the Higher School of Economics and Culture (Latvia) participated in **Erasmus+** Key Action 2 (KA2): “Cooperation for the innovation and the exchange of good practices” in Strategic Partnership project No.2014-1-MK01-KA203-000275 “Innovative Strategic Partnership for European Higher Education – ISPEHE”. Based on the experience of partner organizations, the project created three key innovative components: the Business Education Public Integration Platform (BEP), the Integrated Study Module (SILM) for sharing good practice across Europe, and an international Career Centre.

From 2015 to 2017, RKI together with colleagues from FEEM participated in the European Economic Area Financial Mechanism and Norwegian Financial Mechanism Program Project No. NFI/R/2014/006 “EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia”. The project evaluated the development of higher education and science in Norway and Latvia in the context of European policy documents (Europe 2020, Horizon 2020, Bologna Reform, and Lisbon Strategy).

Since November 2017, RKI has been participating in **ERASMUS+** Key Activity 2 (KA2): “Collaboration for Innovation and Good Practice Sharing” in Knowledge Alliances Program Project No: 588315-EPP-1-2017-EU-EPPKA2-KA “**Improving management competences on Excellence based Stress avoidance and working towards sustainable organisational development in Europe - IMPRESS**”. The project partners are NGO Association of Electronic and Information Technologies in the Basque Country (lead partner); University of Barcelona; Ludwig-Maximilian University of Munich; IBK Management Solutions, Wiesbaden; International Industrial Consulting for SMEs, Frankfurt; NGO Eurofortis, Latvia; NGO Mutual Social Security Cooperation No.2, Bilbao; Waterford Chamber of Commerce, Ireland; Riga Eastern Clinical University Hospital. The project aims to provide training modules and self-assessment tools that enable organizations to identify risk factors and implement preventive practices, individual and organizational solutions to stressors at the organizational, team, and individual employee levels. The approaches developed in the project are based on the key principles of the EFQM model. Currently, the initial results of the project have been integrated into several study programs in separate study courses, for example, Integrated Talent Management, Quality Management, Personnel Management, Fundamentals of Quality Management, Social Responsibility and Business Ethics. The project is currently ongoing and wider implementation of its results is planned for the 2020/2021 academic year.

During the reporting period, the research results of the academic staff of the department have turned into more than 100 publications, including 2 chapters in the scientific encyclopaedia “The SAGE Encyclopaedia of Quality and the Service Economy”, more than 30 publications in scientific journals indexed in SCOPUS and Web of Science databases, more than 40 articles in full-text conference proceedings and over 30 different other publications. Here are given only a few examples of the academic staff involvement in conferences and publications, reviewing journal

articles, and conference organizing committees.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The study program has a mechanism for teachers to cooperate with each other, which facilitates the improvement and interconnection of study courses. The improvement of courses takes place on a regular basis, based on the suggestions made by the students and the trends of the development of the industry. Each course is developed with participation of at least two teachers – the courses, which are acquired simultaneously or which must be acquired consecutively, are developed by the responsible teachers in close cooperation. The teachers mutually coordinate the content of the courses where the study projects are developed. The main purpose of the cooperation is to ensure the principle “from theory to practice, from the simplest to the complex, from the general to the specific”.

During the implementation of the courses, there are regular meetings of the teachers, where they exchange experience on the topics of the courses, as well as develop and improve the study content by mutually agreeing on the topics, focuses, responsibilities and compliance with regulatory requirements. All teachers of a particular course are involved in the process of coordination of the courses, thus ensuring that the topics covered in the study program are constantly improved and updated in cooperation with the professionals of the relevant field.

The study courses consist of thematic blocks of Quality system, Technical and technological processes, Conformity assessment, non-conforming product control and risk assessment. They are coordinated with each other (See Section 2.2).

Cooperation of teachers in ensuring the interconnection of study courses is based on understanding of the thematic structure of the study program. Mechanisms for promoting collaboration are selected based on the individual workload of the academic staff members, the thematic relationship (coherence, continuity, complementarity) of the study courses, and the experience of the teachers.

Within the framework of the study program, the cooperation of the academic staff can be evaluated as contributing to the achievement of the learning outcomes. When reviewing and updating the study program, the teachers agree among themselves on the most appropriate and effective solutions regarding the assessment of student performance and achievement of performance indicators. By periodically discussing and revising the content of the study courses, thematically coordinated and complementary acquisition of the study program is achieved and overlapping of topics in different courses within one study program is avoided.

Various teachers are involved in the implementation of **the thematic block of quality system** – teachers responsible for the study courses, visiting teachers and professionals of the field. The cooperation between the teachers, who implement the theoretical and specialized courses in the field of total quality management is supervised and directed by the KTK management. Students acquire basic knowledge in quality systems, develop a study project, demonstrating their ability to work with information and carry out research. The thematic block of quality system includes a wide range of issues, and therefore, the teachers of all thematic blocks are involved in its development

and harmonization. Students acquire knowledge and develop skills and competences in understanding the principles of total quality management, identifying quality system problems and their possible causes, establishing organizational quality control system, analysing processes and risks related to quality assurance, and selecting and using quality improvement methods. Students gain competence in analysing product and service quality indicators, processes, quality system, and understanding of quality management standards and models of excellence.

Within the **thematic block of technical and technological process engineering** students gain an understanding of the nature and concepts of process, classification, measurement, analysis, monitoring and continuous process improvement. Within the study course, students gain understanding of the types, kinds, classification systems, about processes interaction, the importance of planning and control, as well as efficiency. The topicality of the thematic block is that processes are an organizational component that translates the requirements, needs and wishes of customers and stakeholders into a specific technology or product. Students are shown the regularities between the external and internal processes of the company and the impact of their effective management. The main emphasis in the application of methods is on exploring technological improvements and minimizing or completely eliminating risks and losses during the process execution. Students make calculations assessing the performance and efficiency. The basic principles of process management and improvement, as well as philosophy, different methods and tools are discussed.

Within the **thematic block of conformity assessment**, students demonstrate their knowledge and skills in product, process, person and management system conformity assessment procedures – testing, verification, inspection, certification, standardization and accreditation; they evaluate procedure, processes and products in accordance with the requirements of international standards and normative acts, and define product features necessary for meeting the applicable requirements.

Guest lecturers from the industry participate in the course every year. That enhance students understanding of the operating principles of the international standardization system and standard development procedures by developing students' ability to understand groups of standards, identify standards applicable to particular product or process types, and participate in standard development. Professional activities of the academic staff of the study courses in the field of conformity assessment and standardization ensure the inclusion of the most up-to-date area trends in the content of the study courses.

For example, a highly experienced teacher and practitioner conduct the course “Environmental Compatibility and Risk Analysis”. During the course, the students are acquainted with the basic concepts of risk, assessment and control procedures and methods, their application in industrial, environmental and work environment risk analysis. Students acquire skills in practical application of risk assessment methods and understanding of the applicability of the obtained results. In order to ensure a link between the thematic blocks of risk control and quality system, one research included in the quality management study project is carried out on issues related to risk analysis. The teacher, who supervises the development of the study project in quality management, has attended a course on risk analysis to gain a deeper understanding of the topic and to bring the topics of both courses closer together.

**The study projects** in quality management, conformity assessment and process management are interrelated and complementary, enhancing students' understanding and knowledge in several areas relevant to the profession of Process Quality Engineer. In study projects in quality management and conformity assessment, the teachers help students to choose interrelated study project topics. An obligatory part of all study projects is the theoretical part, where students acquire

skills of research work and develop the skills necessary for writing a research work. In the practical part of the study project, issues of the respective field are analysed at the level of understanding and application – by learning about improvement, control, supervision, compliance, evaluation. During the development of the study project, students do in-depth research on a specific problem related to product, process and system quality and conformity assessment and develop proposals for possible solutions. Within the framework of the study projects, students also acquire the skill of analysing scientific publications, as well as requirements of international standards and normative acts in order to develop conclusions and improvement solutions for specific problems related to the research field, thus developing their research skills.

Quality system, technical and technological process management and conformity assessment issues are closely related. In order to ensure the completeness of the content of the study program and the complementarity of the courses, the academic staff of all thematic blocks coordinate the topics of study courses and their volume, and students are provided with the opportunity to gain a broad insight and understanding of their interrelationship, and also to acquire specific topics in specialized study courses in detail, providing both a theoretical basis for in-depth study of the issues under consideration and solutions for practical application of the knowledge acquired.

The teachers cooperate both within a specific course, when responsible teachers, doctoral students, industry professionals work together, and in courses that include related topics at different levels of understanding (general, detailed, related to a particular aspect of the organization, with emphasis on different opportunities of using the method, etc.), as well as in the bachelor's thesis development process, assessing students' performance in regular seminars.

Based on the number of academic staff members elected by RTU who have a permanent job, the student-teacher ratio is 6 to 1. As the study program involves a significant number of professionals of the field, after including these teachers in the calculations the student-teacher ratio is 4 to 1.

Taking into account that the study program consists of academic staff members from different faculties of RTU, as well as the fact that separate courses are acquired together with students of other programs, the ratio of students and teachers should be considered in the context of the study direction and the Faculty, thus in the bachelor's study programs the average student-teacher ratio is 20 to 1.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	5.pielikums Statistikas dati _ Appendix 5 Statistical data.pdf	5.pielikums Statistikas dati _ Appendix 5 Statistical data.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 compliance with national standard.pdf	6.pielikums_Atbilstiba valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7 compliance with professional standard.pdf	7.pielikums_Atbilstiba profesijas standartam.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8 APPENDIX Mapping of program.pdf	8 PIELIKUMS Bakalaura studiju programmas kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 Study plan.pdf	9.pielikums_Studiju programmas plāns.pdf
Descriptions of the study courses/ modules	Bakalauru kursi_EN.zip	Bakalauru kursi_LV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms profesionālais bakalaurš Kvalitātes inženieris.pdf	Diploms profesionālais bakalaurš Kvalitātes inženieris.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās par studiju turpināšanas iespējām.pdf	Vienošanās par studiju turpināšanas iespējām.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	AGREEMENT for studies at RTU.pdf	Studiju līguma paraugs RTU_LV.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Leadership and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Leadership and Management</i>
Education classification code	<i>47345</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Rita</i>
Surname of the study programme director	<i>Greitāne</i>
E-mail of the study programme director	<i>Rita.Greitane@rtu.lv</i>
Title of the study programme director	<i>Docente, Dr.oec.</i>
Phone of the study programme director	<i>67608647</i>
Goal of the study programme	<i>The aim of the study program is to educate and train socially responsible and highly qualified managers, whose knowledge, leadership skills and competences would enable them to work at public institutions, municipalities, non-governmental organizations and private sector, managing their development and change.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>• To ensure competitive education in accordance with the international standards and to train and educate students for the practical work in business and management;</i></li> <li><i>• To provide students with comprehensive knowledge in the chosen specialty and to develop the management skills and competences necessary for the employment market.</i></li> <li><i>• To improve students' professional skills and abilities, to develop analytical skills, as well as to stimulate interest in the processes taking place in the society by analyzing the development tendencies of specific sectors and evaluating the situation in the organization, as well as in different areas of management and levels of leadership.</i></li> <li><i>• To stimulate development of the student into a positive, up-to-date, responsible, and leadership-oriented personality who can act independently and make independent decisions.</i></li> <li><i>• To develop students' scientific research skills and promote their application. Students should be able to use the obtained knowledge in practical work.</i></li> </ul>

Results of the study programme	<p><i>Upon completion of the study program, the students:</i></p> <ul style="list-style-type: none"> <li><i>• are able to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;</i></li> <li><i>• are able to demonstrate an understanding of the nature and importance of a manager and leader, are aware of various management and leadership strategies, techniques and styles, are able to apply them in practice according to the specific situation to ensure the effective operation of the organization;</i></li> <li><i>• are able to manage a team of employees through a time of crisis and/or changes, to work in a team, intercultural environment and to interact with various parties involved;</i></li> <li><i>• are able to argue and explain their opinion convincingly, discuss complex and systemic issues in the field, to represent the interests of the organization in dealings with other companies, organizations, institutions, including municipalities and state institutions;</i></li> <li><i>• are able to independently improve their own development and self-education in leadership and management by contributing to the creation of new knowledge and an organizational environment that stimulates generation and use of the knowledge generation;</i></li> <li><i>• are able to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research.</i></li> </ul>
Final examination upon the completion of the study programme	<i>State examination, which includes the elaboration and defense of a Master Thesis (20 CP)</i>

## Study programme forms

### Full time studies - 1 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification in the fields of management, economics and administration, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 3 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	3
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	100
Admission requirements (in English)	<i>Bachelor degree in the fields of law or engineering science, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree of social science in economics or management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing, or comparable education</i>



Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>Bachelor degree in the fields of law or engineering science, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>2</i>

Duration in month	6
Language	latvian
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree of social science in economics or management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	0
Language	latvian
Amount (CP)	60
Admission requirements (in English)	<i>Professional bachelor degree and/or fifth level professional qualification in the fields of management, economics and administration, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Sciences in Leadership and Management</i>
Qualification to be obtained (in english)	<i>Organization manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Description and analysis of changes in the study program parameters that have been made since the issuance of the previous study field accreditation sheet or the issuance of the study program license, if the study program is not included in the study field accreditation sheet.

In order to improve the competitiveness and quality of the study program, FEEM Council meeting 10.05.2016. decision no. 22000-1.2 / 44, protocol No. 107 (22000-1.1 / 7) on changes in the study program, which provides:

- 1) change of admission requirements for the Variant 1 of the study program - change the wording of the required prior education "professional bachelor's degree in business and management" to "professional bachelor's degree and / or second level professional higher education in management, economics and administration or equivalent" ;
- 2) the volume of program in terms of credit points (from 100 to 80 CP) was changed in Variant 2 of the study program, the duration of full-time studies was changed from 2.5 to 2 years and part-time studies – from 3 to 2.5 years;
- 3) change in qualification from “Economist” to “Business Manager” was made;
- 4) the study program was supplemented with Variant 3 and 4.

Program changes have been approved by the Study Department on August 23, 2016, Order no. 02000-1.1 / 72. For a description and analysis of the changes, see section 2.1.

In the academic year 2019/2020 the following changes were made in the study program:

- 1) the title of the study program was changed from “Entrepreneurship and Management” to “Leadership and Management”;
- 2) the title of the degree obtained has been changed from 'professional master's degree in business and management' to 'professional master's degree in leadership and management';
- 3) change of professional qualification to be acquired – Enterprise Manager to qualification of Organizational Manager.

Changes in the study program were approved by the AIKA Study Quality Commission on January 22, 2020, decision no. 2020/01-I.

Changes made in the study program are shown and analyzed in section 2.1.

Implementation of the Professional Master's study program “Leadership and Management” in Variant 1 (students at the previous level have acquired a Professional Bachelor Degree and/or 2nd level professional higher education in Management, Economics and Administration, or other recognizable education) and Variant 3 ( students with a previous Professional Bachelor Degree and/or 2nd level professional higher education in Law, Engineering and Technology, Manufacturing

and Processing or Construction, or other recognizable education), graduates have so far only been awarded a master's degree in business and management (from 2020 - leadership and management). In these cases, no professional qualification business manager (since 2020 - organization manager) was granted.

Having regard to the critical remark received by the Agency for the Quality of Higher Education in February 2020: "... draws attention to the fact that, following the acquisition of a professional master's degree programme, it is only possible not to grant professional qualifications to students who have already obtained ... professional qualifications at the previous level ...", and on the basis of point 29 of Cabinet of Ministers Regulation No 512 of 26 August 2014, Regulations on the State Standard for Vocational Higher Education, draft decision on amendments to this study programme is being directed to the Senate meeting of Riga Technical University on 24 February 2020 - to add granting of professional qualification Organization Manager to the graduates of variantes 1 and 3 of the program.

## **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Number of full-time students (total) of the professional Master study program "Leadership and Management" by year:

1. in academic year 2013/2014, 59 students studied;
2. in academic year 2014/2015 66 students studied;
3. in academic year 2015/2016, 64 students studied;
4. in academic year 2016/2017 64 students studied;
5. in academic year 2017/2018, 60 students studied;
6. in academic year 2018/2019, 52 students studied.

Over the years, changes in the number of students have not been significant. In 2018/2019 academic year, the number of full-time students dropped by seven students (12 %) compared to academic year 2013/ 2014.

Decrease in the number of full-time students in academic year 2018/2019 was due to the fact that this was the first year when 10 part-time, extramural students were enrolled in the study program.

In academic year 2018/2019, the number of matriculated first-year students was the largest (36 students) compared to other years of the reporting period. Changes in the number of students were also influenced by the changes made in the study program in academic year 2016/2017. The changes in the curricula were based on the results of the student questionnaire and the requirements of the employment market, as well as on introducing the opportunity to study to the people with the previously acquired Professional Bachelor Degree and/or 2nd level professional higher education in Law, Engineering and Technology, Manufacturing and Processing or Construction, or other recognizable education in Variant 3 of the study program, and the previously acquired Academic Bachelor Degree in Law and Engineering, or other recognizable education in Variant 4 of the study program.

The number of students in the program broken down by admission requirements during the 6-year program is variable, but overall the trend remains that the highest number of students are with

previously acquired professional Bachelor education in Management, Economics and Administration, followed by students with a Bachelor Degree in Economics or Business and Management, or other recognizable education. Academic year 2016/2017 is the first year of matriculation of students with a Bachelor Degree and/or 2<sup>nd</sup> level professional higher education in Law, Engineering and Technology, Manufacturing, Processing or Construction, or other recognizable education (Variant 3). In the first year (2016/2017), the number of full-time intramural students was four, in the second year (2017/ 2018) – three students, while in the third year (2018/2019) – eight students.

The number of students in the program broken down by admission requirements and form of implementation is shown in Appendix 5.

In academic year 2018/2019, part-time, extramural students were matriculated for the first time. Ten students commenced their studies, eight of them had a Professional Bachelor Degree and/or a 2<sup>nd</sup> level professional higher education in Management, Economics and Administration or other recognizable education (Variant 1) and two students had a Professional Bachelor Degree and/or 2<sup>nd</sup> level professional higher education in Law, Engineering and Technology, Manufacturing and Processing or Construction, or other recognizable education (Variant 3).

From academic year 2013/2014 to 2018/ 2019, the study program was implemented in the Latvian language only.

The number of students expelled from the study program during the reporting period was inconsistent. In academic year 2013/ 2014, no students were expelled due to the academic failure; however, three students were expelled on a voluntary basis and one student did not resume studies after the sabbatical leave. In academic year of 2014/ 2015, three students were expelled due to the academic failure; two students were expelled on a voluntary basis. In academic year 2015/2016, four students were expelled due to the academic failure, two students were expelled on a voluntary basis, and one student did not resume studies after the sabbatical leave. In academic year 2016/ 2017, six students were expelled due to the academic failure; all students resumed the studies after their sabbatical leave. In academic year 2017/2018, eight students were expelled due to the academic failure; six students were expelled on a voluntary basis, and one student did not resume studies after the sabbatical leave. In academic year 2018/ 2019, six students were expelled due to the academic failure; four students were expelled on a voluntary basis and four students did not resume studies after their sabbatical leave. The highest number of expelled students is during the first year of the studies. The main reason for the expulsion is academic failure (53 % of the dropouts) and inability to combine work and/or family life (33 % of the dropout students). Appendix 5.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

On 30 September 2019, an application was submitted to the Academic Information Center to change the name of the study program from “Entrepreneurship and Management” to “Leadership and Management”, and the degree to be awarded from a Professional Master Degree in Entrepreneurship and Management to a Professional Master Degree in Leadership and Management. On the basis of the changes in external regulations (changes in the Qualification

Framework of Business, Finance, Accounting and Administration (Wholesale and Retail, Commercial), and LQF Level 7 Occupational Standard "Organizational Manager" approved by the Tripartite Cooperation Subcommittee on Vocational Education and Employment of 18 September 2019 (Minutes No. 6)), qualification was changed from Business Manager to Organizational Manager.

The study program "Leadership and Management" specializes in management competences through the prism of leadership. The professional Master study program in Leadership and Management focuses on basic management skills, such as interpersonal and technical skills. Interpersonal skills refer to collaborative skills, which are among the skills that an employer is willing to see in their employees (source: Employers' Confederation of Latvia) and are the most demanded skills at all levels of management. Leadership is attributable to the most important skills in the future (source: Forbes <https://www.forbes.com/sites/bernardmarr/2019/04/29/the-10-vital-skills-you-will-need-for-the-future-of-work/#39c233673f5b>). Management skills, on the other hand, are an important part of the technical and conceptual skills that, combined with leadership skills, ensure efficiency of the manager. Manager of an organization plans, organizes and monitors work of the organization, its development, analyzes investments in physical environment and in the improvement of resources, coordinates the organization's HR management strategy, policies and objectives with the organization's objectives, compares with the trends in the industry and global processes. The learning outcomes of the study program "Leadership and Management" comply with the requirements of the standard for Organizational Manager. The knowledge, skills and competences to be acquired at the study program are related to the fifth professional qualification level (PQL level 5) and correspond to the seventh level of the Latvian Qualifications Framework (LQF level 7) as defined in the Standard for Organizational Manager. The development of leadership skills and competences included in the study program is directly attributable to the enhancement of competences of organizational manager, such as the ability to develop an organizational culture corresponding to the strategy of the organization; ability to lead oneself and others towards the objectives of the organization through effective team collaboration; ability to develop a human resources management system that is consistent with the strategy of the organization; ability to manage changes within the organization; ability to manage crisis situations within the organization; ability to cooperate with functional managers and employees in organizing rational and coordinated activities of departments. The ability to lead and develop oneself and others by choosing the right leadership strategy and style, and thus improving performance is relevant to all areas of business (commercial, governmental and non-governmental etc.). People with or without prior knowledge of management can develop leadership and management skills. Therefore, the admission requirements of the study program "Leadership and Management" are as follows: previous professional or academic Bachelor education in Management, Economics and Administration, or other recognizable education, or previous professional or academic Bachelor education in Law or Engineering, or other recognizable education.

The study program is implemented in the volume of 60 CP, 80 CP and 100 CP in order to fulfil the provisions of the Cabinet of Ministers Regulations No. 512 "Regulations on the National Standard for the Second Level Professional Higher Education" that *"The duration of full-time studies of the master's program is one to two years, provided that the total duration of bachelor's and master's studies is not less than five years"* and specified in Paragraph 28 that *"in the master's program the choice of study courses, content and volume of study courses, as well as internship content for the degree to be obtained is determined **according to the professional standard** (if it is approved by the Tripartite Cooperation Sub-Council for Vocational Education and Employment - PINTSA) "*. In this case, the content of the study program is determined by the **professional standard "Organisation manager"** approved by PINTSA on 18 September,

2019.

**The 100 CP studies** are applicable to students who have obtained an academic **bachelor's degree** in the previous study period to ensure the provisions of Paragraph 23.3: *"The compulsory content of the master's program consists of **internship in the volume of at least 26 credit points**, if it is intended for graduates of the bachelor's program"* and specified in Paragraph 27 that *"students of the master's program with a previously obtained **academic bachelor's degree** after successful completion of the master's program obtain a fifth level **professional qualification**"*.

Thus, **in order to simultaneously ensure all** the above-mentioned **requirements** of the Cabinet of Ministers Regulations No. 512, the 80 CP program, with the duration of full-time studies is 2 years (including internship in the volume of 6 CP), adds a compulsory **internship in the volume of another 20 CP** specified in Paragraph 23.3 thus reaching the volume of 26 CP), **consequently the volume of the study program increases to 100 CP**.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The content of the study program "Leadership and Management" corresponds to the needs of the industry, labor market and the trends in the science and is evaluated annually by the program self-assessment working group. The working group consists of representatives of the labor market (entrepreneur Ģirts Rungainis, who has broad experience in the financial services and investment, entrepreneur Gints Škodovs, who has worked for a state joint-stock company managing more than 2,000 employees), as well as a student representative (Kristaps Liepiņš, who has acquired a Bachelor degree in the USA in Cognitive Sciences) and a member of the academic staff (Professor Irina Voronova).

In order to ensure that the program is in line with industry trends and scientific achievements in leadership and management, in 2018 a cooperation agreement was signed with association VITAE (cooperation agreement No. 03000-3.3.1-e / 4 dated 7 February 2019, term of validity of a contract – 5 years). VITAE is the only one official *FranklinCovey* Education representative in Latvia that has a contract with FranklinCovey Education on the rights to implement the "Leader in Me" program package in Latvia. It includes such programs topical for the professional Master study program "Entrepreneurship and Management" as "Habits of Highly Effective People" (the program deals with personal leadership and efficiency: development of corporate personality growth systems, topical solutions for the analysis of the personality and professionalism); "7 Habits of Leaders", "4 Important Leadership Roles" (includes questions about managers and their personality); "The 4

Disciplines of Execution” or 4dx is a proven set of practices that have been developed by FranklinCovey and are designed to enable organizations to successfully implement strategies based on their employee behavior change. FranklinCovey is one of the leading training companies in the world specializing in research and development of leadership and leadership development programs, productivity and efficiency enhancement, and business performance and evaluation of the employees, as well as development solutions.

In order to educate and train specialists necessary for the Latvian economy, as well as create new products and services, which is stipulated in RTU Development Strategy 2014–2020, thus achieving the aim of the Master study program “Leadership and Management” – “to educate and train socially responsible and highly qualified managers whose knowledge, leadership skills and competences would enable them to work at public institutions, municipalities, non-governmental organizations and private sector, ” collaboration with VITAE has been established within the study course “Leadership: Strategies and Tactics” (Cooperation Agreement No. 03000-3.3.1-e/4).

Leadership and management skills, which include communication and business communication skills, are among the most demanded soft skills. Moreover, leadership and management skills are not directly exposed to the rapid technological change and are becoming increasingly important in the digital age. (Source: <https://www.pwc.com.au/careers/blog/future-employment.html>). The report made by the McKinsey Global Institute “Skill Shift Automation and the Future of the Workforce” shows that automation and artificial intelligence have been changing and will be changing the skills needed for the workforce. Skills such as entrepreneurship skills, leadership, and the management of others in the group of soft skills are on the rise. The OECD Skills Strategy 2019 also states that four skill groups in general determine future skills at work and life, including social and emotional skills, which are these important future skills as well.

Currently, there is no study program in leadership and management in Latvia; nevertheless, these study programs are becoming increasingly popular at foreign universities. There are more than 40 Master study programs in leadership and management in Europe and worldwide. Such study programs are, for example, in Sweden, Germany, Great Britain, Spain and elsewhere.

Until academic year 2015/2016 (including), the duration of the study program, which takes the form of full-time studies, is 1.5 years (60 CP). For students who have a Bachelor Degree of Social Sciences, the previously acquired study courses are recognized and additional requirements (amounting to 40 CP) are set. The duration of the study program is 2.5 years (100 CP) – studies and internship are combined in order to obtain the qualification of Economist. To improve the competitiveness and quality of the study program, a decision was made in accordance with the procedures adopted by RTU to make changes in the study program, which envisaged changes in the duration of the studies, as well as supplementing the study program with new additional variants. The volume of program in terms of credit points (from 100 to 80 CP) was changed in Variant 2 of the study program, the duration of full-time studies was changed from 2.5 to 2 years and part-time studies – from 3 to 2.5 years, as well as change in qualification from “Economist” to “Business Manager” was made. The Accreditation Commission approved the above-mentioned changes. The study program was supplemented with:

- Variant 3 under the following conditions: number of credit points – 80, duration of full-time studies – 2.0 years, part-time (extramural form) – 2.5 years, degree and qualification – Master Degree of Social Sciences in Business and Management, qualification acquired – the 7th level of EQF and LQF; the 5th level professional qualification, previous education required – Professional Bachelor Degree and/or 2nd level professional higher education in Law, Engineering and Technology, Manufacturing and Processing or Construction, or other recognizable education;



- Variant 4 under the following conditions: number of credit points – 100, full-time studies – 2.5 years, part-time (extramural form) – 3 years, degree and qualification – Master Degree of Social Sciences in Business and Management and qualification of a Business Manager, qualification acquired – the 7th level of EQF and LQF; the 5th level professional qualification, previous education required – Academic Bachelor Degree in Law and Engineering, or other recognizable education.

In academic year 2016/ 2017, in order to ensure the compliance of the study courses with the skills and competences required by the Standard for Organizational Manager, the Compulsory Part (A) of the study program involved study courses that provided knowledge, skills and competences in Business Management and Innovation Management. In Variants 3 and 4 of the study program, Part A included study courses that provided knowledge, skills and competences in Economics, Business Economics and Evaluation, Risk Management as well as Human Resource and Business Management (study project). The study courses aimed at developing an understanding of research methods and project management as well as social responsibility and business ethics were included under the compulsory elective study courses (Part B). Since academic year 2016/2017, study courses “Psychology” and “Pedagogy” have been replaced with the appropriate study courses, which focus on contemporary research methods and current developments in science and business management, that are in accordance with the Professional Standard for Organizational Manager and in compliance with Cabinet Regulation No. 512. In order to ensure compliance with Cabinet Regulation No. 512, the compulsory content of the Master study program consists of internship (at least 26 CP) for undergraduate students, or at least 6 KP for graduates of the academic Bachelor program, so the volume of Part D has changed from 32 CP to 26 CP for students, who have previously acquired an Academic Bachelor Degree (Variant 2 and 4). Compared to the enrollment of the previous academic year, the number of students increased by 11% in academic year 2016/2017. The changes made in the previous academic year have to be regarded as positive, as they encouraged students from other study fields (Engineering, Journalism etc.) to continue their education in Business and Management.

In academic year 2017/2018, the study process was implemented in accordance with the previously accepted changes. As the study year was ending, the study program was evaluated and, taking into account the recommendations of the self-assessment working group, the results of the study program mapping revealed that greater specialization in leadership and management skills was required.

In academic year 2018/2019, the following changes were made in the study program in order to implement the recommendations of the self-assessment working group of the previous academic year and to take into account the conclusions of the mapping of study courses and study program learning outcomes. Such study courses as “Leadership and Management” and “Business Coaching” as well as “Enterprise Management” were included in Part A (for Variants 3 and 4), while the following study courses “Business Process Management”, “Economics” (based on the mapping of the study course and program learning outcomes) and “General and Occupational Safety” (study course was replaced with a contemporary study course in Part B – “Work Environment and Ergonomics”) were excluded from Part A. The study course “Innovation Economics” was moved to Part B, given that students who had previously obtained a Professional or Academic Bachelor Degree in a business-related field of studies had/might have achieved the learning outcomes defined in the course, and the study courses “Enterprise Valuation” and “Business Risks” were moved to Part B (Variants 3 and 4). Compulsory elective study courses (Part B) include study courses related to team management and public communication (“Team Building and Management”, “Public Communication for Managers”), as well as study courses that promote the development of an understanding of process management – “Process Management Methods”

(replaces the study course “Business Process Management”), “Management Information Systems” and “Quality Management” – “Quality Technologies and Management” (for Variants 3 and 4), as well as study courses, which partially duplicated study courses acquired at the undergraduate level and results achieved in other study courses, were excluded from Part B. The last changes in the study courses were made in September 2019 in order to ensure the relevance of the study courses to the changes in the Business, Finance, Accounting and Administration (Wholesale and Retail, Commercial) Qualifications Framework and the qualification standard of the LQF level 7 “Organizational Manager” approved by the Tripartite Cooperation Subcommittee on Vocational Education and Employment, Appendix 7. In Part A, the course “Leadership and Management” was replaced with the course “Leadership: Strategies and Tactics”, the course “Managerial Decision Making” with the course “Corporate Governance”, the course “Business Coaching” with the course “Human Resource Development” and the study courses “Business Research Methods” (study project) and “Financial Analysis and Planning” were transferred from Part B to Part A. The following study courses were included in Part B: “Communication and Business Negotiations” (replaced the course “Public Communication for Managers”), “Change and Crisis Management” and “Contemporary Project Management”. Compliance of the Study program with Cabinet Regulation No. 512 is provided in Appendix 6.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program “Leadership and Management” strives to achieve its aim, tasks and learning outcomes by developing such study courses, whose aim, tasks, learning outcomes and independent work organization ensure their achievement, including compliance with regulatory enactments and the occupational standard of Organizational Manager (Appendix 7). The relation between the study program and the learning outcomes to be achieved is shown in the mapping of the study courses in Appendix 8. Study course planning by semesters is shown in Appendix 9.

After the mapping of the learning outcomes of the study courses in relation to the learning outcomes of the study program it can be concluded:

- 1) Compulsory study courses of the program (Part A) ensure all learning outcomes of the program:
  - the study course “Corporate Governance” ensures the achievement of such learning outcomes as:
    - ability to define the organization’s business objectives, policies and strategy, to plan, organize and manage the organization’s operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;
    - ability to demonstrate an understanding of the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;
    - ability to manage a team of employees through a time of crisis and/or changes, to work

- in a team, intercultural environment and to interact with various parties involved;
- the study course “Leadership: Strategies and Tactics” focuses on the learning outcomes of the program, such as:
    - ability to understand the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;
    - ability to independently improve one’s personal development and self-education in leadership and management by contributing to the creation of new knowledge and an organizational environment that stimulates generation and appropriate use of knowledge;
  - the study course “Human Resource Development” focuses on the learning outcomes of the program, such as:
    - ability to manage a team of employees through a time of crisis and/or changes, work in a team, intercultural environment and to interact with various parties involved;
    - ability to understand the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;
  - the study course “Business Research Methods” (study project) focuses on the learning outcomes of the program, such as:
    - Ability to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research;
    - Ability to argue and explain one’s own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other companies, organizations, institutions, including municipalities and state institutions;
  - the study course “Financial Analysis and Planning” focuses on the learning outcomes of the program, such as the ability to identify goals, policies and strategies of the organization, to plan, organize and manage organizational work in order to ensure sustainable growth and development of the organization, industry and country by integrating knowledge of various fields;
  - the study course “Enterprise Management” (for Variants 3 and 4) focuses on the learning outcomes of the program, such as the ability to identify goals, policies and strategies of the organization, to plan, organize, and manage organizational work in order to ensure sustainable growth and development of the organization, industry and country by integrating knowledge of various fields;
  - the study course “Enterprise Management” (study project) (for Variants 3 and 4) focuses on the learning outcomes of the program, such as the ability to identify goals, policies and strategies of the organization, to plan, organize, and manage organizational work in order to ensure sustainable growth and development of the organization, industry and country by integrating knowledge of various fields;
  - the study course “Business Economics” (for Variants 3 and 4) focuses on the learning outcomes of the program, such as the ability to identify goals, policies and strategies of the organization, to plan, organize, and manage organizational work in order to ensure sustainable growth and development of the organization, industry and country by integrating knowledge of various fields;

2) study courses of Part B ensure the achievement of all learning outcomes of the study program, primarily by focusing on the ability to argue and explain one's own point of view, to discuss complex and systemic issues within the industry, to represent the organization's interests in transactions with other companies, organizations, institutions and public authorities:

- the study course "Change and Crisis Management" ensures the achievement of such learning outcomes as:
  - ability to manage a team of employees through a time of crisis and/or changes, to work in a team, intercultural environment and to interact with various parties involved;
  - ability to independently improve one's personal development and self-education in leadership and management by contributing to the creation of new knowledge and an organizational environment that stimulates generation and appropriate use of the knowledge;
- the study course "Communication and Business Negotiations" ensures the achievement of the learning outcomes of the program, such as the ability to argue and explain one's own point of view, to discuss complex and systemic issues within the industry and to represent the organization's interests in transactions with other companies, organizations, institutions, including public authorities;
- the study course "Corporate Social Responsibility and Business Ethics" ensures the achievement of such learning outcomes as:
  - ability to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;
  - ability to argue and explain one's own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other companies, organizations, institutions, including municipalities and state institutions;
- the study course "Process Management Methods" ensures the achievement of the learning outcomes of the program by understanding the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;
- the study course "Contemporary Issues of Strategic Management and Marketing" focuses on the learning outcomes of the program, such as:
  - ability to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research;
  - ability to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;
- the study course "Contemporary Project Management" focuses on the learning outcomes of the program, such as:
  - ability to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;
  - ability to manage a team of employees through a time of crisis and/or changes, to work

- in a team, intercultural environment and to interact with various parties involved;
- ability to argue and explain one's own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other companies, organizations, institutions, including municipalities and state institutions;
- the study course "Work Environment and Ergonomics" (Variants 2, 3 and 4) ensures the achievement of such learning outcomes as ability to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;
- the study course "Economics and Management of Innovations" (for Variants 3 and 4) focuses on the learning outcomes of the program, such as:
  - ability to argue and explain one's own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other companies, organizations, institutions, including municipalities and state institutions;
  - ability to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research;
- the study course "Quality Technologies and Management" (for Variants 3 and 4) focuses on the learning outcomes of the program, such as:
  - ability to demonstrate an understanding of the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;
  - ability to argue and explain one's own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other companies, organizations, institutions, including municipalities and state institutions;
- the study courses "Enterprise Valuation" (for Variants 3 and 4), "Business Risks" and "Management Information Systems" focus on the learning outcomes of the program, such as ability to identify organizational goals, policies and strategies, to plan, organize and manage organizational work, ensuring sustainable growth and development of the organization, the industry and the state by integrating knowledge from different fields.

The study courses of Part B are adapted to what students have studied at the undergraduate level.

3) the study courses "Internship" and "Master Thesis" focus on the learning outcomes of the program, such as ability to independently improve one's personal development and self-education in leadership and management by contributing to the creation of new knowledge and an organizational environment that stimulates generation and appropriate use of the knowledge; ability to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research.

See Appendix 10 for descriptions of the study courses.

## 2.3. Assessment of the study implementation methods (including the evaluation methods)

**by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Provide an explanation of how the student-centered principles are taken into account in the implementation of the study process.

The study methods used during the study process are as follows:

- group work, discussions, case studies, presentations in order to promote analytical, critical and creative thinking, argumentation and communication skills;
- lectures, seminars and workshops;
- independent studies and research papers, reports;
- meetings with the industry professionals and foreign lecturers as part of the study courses.

For example, in academic year 2018/2019, students of the study program had the opportunity to meet and negotiate with the following visiting lecturers (see Table 2.1.).

Table 2.1.

Guest Lectures Delivered by the Industry Professionals and Foreign Lecturers

Visiting lecturer	Name of the organization	Topic	Study course
Maria Pedro (Portugal)	Professor at the Polytechnic Institute of Tomar	Brand Internationalization	“Contemporary Issues of Strategic Management and Marketing”
Celio Marques (Portugal)	Professor at the Polytechnic Institute of Tomar	Web Analytics and Competitive Intelligence	“Contemporary Issues of Strategic Management and Marketing”
Sergejs Volvenkins	Head of the Digital Department at iMarketings.lv	Integration and Planning of Digital Marketing Tools, Budgeting, Measurement of Efficiency	“Contemporary Issues of Strategic Management and Marketing”
Anita Kalniņa	Head of HR at Mogo Finance	Thinking of a Young Manager	“Business Coaching”

Lilita Vecherska	Reporting & Marketing Manager at MSC Shared Service (Riga)	Tools for Data Analysis and Visualization	"Management Decision Making"
Andris Vanags	Chairman of the Board of JSC Sakret Holdings	Strategic Management	"Contemporary Issues of Strategic Management and Marketing"

The study program is focused on integrating metacognition into the study process by encouraging learners to reflect on their own thinking and behavior, taking into account that "development of metacognition in education is one of the demands of the 21st century because changes in education are influenced by the rapid development of artificial intelligence and that promotes the disappearance of privacy boundaries and increases the need for the individual to know themselves so that, as a result of societal and economic development, the individual does not have to lose their identity" (State Education Quality Service, K. Oganisjana, R. Ozols, 2018, p.15). Therefore, promotion of metacognitive skills in the study process is one of the most important principles of student-centered education: metacognition facilitates the monitoring and control of their learning process. Using the principles of metacognition, students can plan their activities based on their own learning goals and independently manage their own learning process, while also evaluating themselves and their achievements, leading them to analyze what they have gained through the study process. "In this way, students can: (1) identify what they still need to learn or strengthen in order to achieve their own learning objectives; (2) review the content of the study course; (3) change the learning objective, if necessary; (4) adapt their learning strategy to their abilities and learning strategies to measure their effectiveness" (State Education Quality Service, K. Oganisjana, R. Ozols, 2018, p. 16). Metacognition is integrated into the study course such as "Leadership: Strategies and Tactics", which is included in all variants of the study program as a compulsory course.

Case studies and problem-based learning approach are used for students' critical thinking, group work, and knowledge integration in order to evaluate learning outcomes (e.g., in "Contemporary Issues of Strategic Management and Marketing", "Business Risks", "Enterprise Valuation", "Process Management Methods"). Similarly, a gamification approach is used in the study process (e.g., in the study course "Process Management Methods"). The study program promotes the development of research and scientific writing skills by involving students in writing and presenting scientific articles at the joint Student Scientific and Technical Conference (SSTC) of RTU and the University of Latvia. Graduate student Viktorija Babiča with a report "Development of Guidelines for Evaluation of Innovation Procurement ", Dainis Budrevičs with a report "Development of Crowd Financing Platform in a Financial Institution" and Janīna Bočenkova with a report "Elaboration and Provision of Development Strategy in Aesthetic Medical Products Trading Company" participated in RTU SSTC.

During the study courses, academic staff members evaluate students' ability to use theoretical knowledge in practical work and study projects, their independent work skills working both individually and in a group, ability to identify problems of specific companies and propose solutions, ability to discuss the issues and to support their opinion, as well as ability to present the results of their work. The structure of the evaluation of the study courses consists of the component of the student's work during the semester and the component of the examination, provided that the component of the examination in the structure of the evaluation cannot exceed 50 %.

The study program is implemented in four variants, full-time, intramural form and part-time extramural form in Latvian, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role. For example, in the study courses Leadership: Strategies and Tactics, using the principles of metacognition, students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their achievements, as well as analyzing what they have learned in the course and in the learning process as a whole. In the study course Process Management Methods situation analysis is used, analyzing the existing processes and developing process improvement opportunities, in the study course Personnel Development Methods problem-based learning is used.

#### **2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The internship is part of the Master study program "Leadership and Management", which aims at improving the student's professional skills and competences in a professional environment, as well as consolidating and improving student's knowledge according to the requirements stipulated in the Standard "Organizational Manager". The study program involves internship in the volume of 6 CP (internship for the needs of the Master Thesis) and internship in the volume of 20 CP (qualification paper) for those students who have previously acquired an academic Bachelor degree. The tasks of the internship for the needs of the Master Thesis (6 CP) and the learning outcomes of the study program are shown in Table 2.2.



Table 2.2.

Relation of the Internship (for the needs of the Master Thesis) Tasks with the Learning Outcomes of the Study Program

Learning outcomes of the study program (No.)*	1.	2.	3.	4.	5.	6.
To carry out a structured analysis of the object of the study, to identify the problems and to show the ways of their solution according to the chosen theme of the Master Thesis	x		x	x	x	x
To collect information on the problem addressed, including analysis of the literature and Latvian and foreign experience	x				x	x
To develop preliminary contents of the Master Thesis based on the analytical conclusions and problems identified	x	x			x	x

Internship involves familiarizing oneself with the work of Organizational Manager, participating in practical business tasks, engaging in team/group work, developing leadership skills and skills to identify and assess strategic issues, as well as to develop solutions to these issues, taking into account the company's interests as well as regulatory and ethical standards. The aim of the internship is to systematize, use and expand theoretical and practical knowledge and skills in the chosen study field, to prepare for the development of the Master Thesis. As shown in Table 2.2., the internship tasks contribute to the achievement of the learning outcomes of the study program.

The tasks of the internship (20 CP) and the learning outcomes of the study program for the students who previously acquired an academic Bachelor degree are shown in Table 2.3..

Table 2.3.

Relation of the Internship (20 CP) Tasks with the Learning Outcomes of the Study Program

Learning outcomes of the study program (No.)*	1.	2.	3.	4.	5.	6.
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To examine the industry and its trends using the Herfindahl-Hirschman Index (HHI) of market concentration	x	x				
To analyze and evaluate the financial performance of the organization through horizontal and vertical balance sheet analysis	x	x				
To analyze the costs of the organization and evaluate the pricing policy using publicly available information and to draw conclusions on the pricing policy	x					
To perform SWOT analysis of the organization using a quantitative assessment method	x		x		x	x
To identify business challenges and how they can be addressed in the digital age by exploring alternative options	x	x			x	x

\*The learning outcomes of the study program:

1 - ability to define the organization's business objectives, policies and strategy, to plan, organize and manage the organization's operations, ensuring the sustainable growth and development of the organization, the industry and the country by integrating knowledge from various fields;

2 - ability to develop and understanding of the nature and importance of a manager and leader, to be aware of various management and leadership strategies, techniques and styles, to apply them in practice according to the specific situation in order to ensure the effective operation of the organization;

3 - ability to manage a team of employees through a time of crisis and/or changes, to work in a team, intercultural environment and to interact with various parties involved;

4 - ability to argue and explain one's own opinion convincingly, to discuss complex and systemic issues of the field, to represent the interests of the organization in transactions with other

companies, organizations, institutions, including municipalities and state institutions;

5 – ability to independently improve one's personal development and self-education in leadership and management by contributing to the creation of new knowledge and an organizational environment that stimulates generation and appropriate use of the knowledge;

6 – ability to demonstrate in-depth knowledge in management, to think creatively and critically, to evaluate and analyze information, business policy and the environment required for professional performance in the context of globalization by applying research methods and conducting in-depth research.

The internship tasks are designed to ensure the learning outcomes of the study program and thus achieve the aim of the study program – to educate and train socially responsible and highly qualified managers, whose knowledge, leadership skills and competences would enable them to work at public institutions, municipalities, non-governmental organizations and private sector, managing their development and change. The aim of the internship is to systematize and expand the student's theoretical and practical knowledge of leadership and management, to develop the ability to justify the importance of the problems under consideration, to develop economically and strategically sound problem-solving options and to collect data for further research (for the project part of the Master Thesis).

During the internship, students have a supervisor from the company and the internship coordinator from the university. In order to achieve the internship tasks, the internship coordinator consults and arranges face-to-face meetings with the students. The results of the practice are summarized in the Internship Report, which is evaluated by the internship supervisor (from the company where the internship took place) and the internship coordinator (from the university), who reviews the written Internship Report. Students' presentation skills, ability to reasonably express their opinion on the conclusions and proposals on the improvements to be made in the organization (internship place) activities, are developed during the defense of the internship in front of the Internship Evaluation Committee.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Within the framework of the Master Thesis, students conduct independent research, by integrating scientific and professional achievements in business, management and leadership, and achieving excellent and outstanding results. The themes of the Master Theses can be divided into three parts:

- themes related to the development of principles concerning the guidelines for the functional areas of the organization;
- themes related to the development and implementation of the organization's overall/development strategy;
- themes related to the improvement of strategies for the development of the functional areas of the organization.

The themes of Master Theses reflect current events in the industry and the labor market because an organized internal environment (guidelines, principles) of the organization and its functional areas promotes productivity and overall efficiency of the organization. In turn, developing and

implementing research-based strategies in organizational/functional areas enhance the competitiveness and value of the organizations. It can be concluded that the themes of the Master Theses are more related to defining the development areas of the organizations, if one compares the themes of the Master Theses in academic year 2018/2019 with the themes of the previous years.

The number of graduates and the average students' grades are shown in Table 2.4.

Table 2.4.

Number of Graduates and their Average Grades					
Academic year	Number of graduates	Weighted average grade at the moment of graduation			Diploma with honors
		highest	lowest	average	
2013/2014	24	9.08	6.72	8.10	2
2014/2015	24	9.07	7.14	8.06	3
2015/2016	21	8.72	6.81	8.01	-
2016/2017	19	9.13	6.27	8.11	1
2017/2018	25	9.18	6.90	8.21	-
2018/2019	14	9.2	7.53	8.28	1

The number of graduates has remained relatively stable in the recent years.

In academic year 2014/2015, 23 graduates acquired a professional Master Degree of Social Sciences in Business and Management and one graduate acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Economist. The average grade for defending the Master Thesis in front of the State Examination Commission was 7.88:

5 (or 21%) students obtained grade "9 – excellent";

11 (or 46%) students obtained grade "8 – very good";

8 (or 33%) students obtained grade "7 – good".

In academic year 2015/2016, 18 graduates acquired a professional Master Degree of Social Sciences in Business and Management and three graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Economist. The average grade for defending Master Thesis in front of the State Examination Commission was 7.86:

6 (or 28%) students obtained grade "9 – excellent";

9 (or 43%) students obtained grade "8 – very good";

4 (or 19%) students obtained grade "7 – good";

1 (or 5%) student obtained grade "6 – almost good";

1 (or 5%) student obtained grade "5 – satisfactory".

In academic year 2016/2017, 13 graduates acquired a professional Master Degree of Social Sciences in Business and Management and six graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Economist. The average grade for defending Master Thesis in front of the State Examination Commission was 7.89:

1(or 5%) student obtained grade "10 – outstanding";

5 (or 26%) students obtained grade "9 – excellent";

6 (or 32%) students obtained grade "8 – very good";

5 (or 26%) students obtained grade "7 – good";

2 (or 11%) students obtained grade "6 – almost good".

In academic year 2017/2018, 21 graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Manager and two graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Economist. The average grade for defending Master Thesis in front of the State Examination Commission was 8.36:

2 (or 8%) students obtained grade "10 – outstanding";

11 (or 44%) students obtained grade "9 – excellent";

8 (or 32%) students obtained grade "8 – very good";

2 (or 8%) students obtained grade "7 – good";

2 (or 8%) students obtained grade "6 – almost good".

In academic year 2018/2019, 11 graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Manager and three graduates acquired a professional Master Degree of Social Sciences in Business and Management and the qualification of Organizational Manager. The average grade for defending Master Thesis in front of the State Examination Commission was 8.36:

1 (or 7%) student obtained grade "10 – outstanding";

6 (or 43%) students obtained grade "9 – excellent";

4 (or 29%) students obtained grade "8 – very good";

3 (or 21%) students obtained grade "7 – good".

Dainis Budrevičs defended his Master Thesis with grade "10 – outstanding" and received **diploma with honors**. Analyzing the evaluation of Master Theses, it can be concluded that in academic years 2017/2018 and 2018/2019, the average grade increased from 7.88 on average to 8.36, the number of Master Theses defended with grade "outstanding" increased by 18.5%. In academic year 2014/2015, Vineta Peimane was included in **RTU Golden Fund**, which includes the most outstanding RTU graduates in terms of academic performance and social activities. In academic year 2016/2017, Anna Stepanova (diploma with honors) and Edvards Lorencs were included in RTU Golden Fund. In academic year 2017/2018, RTU Golden Fund included five graduates: Paula Krumholce, Rita Rēpele, Jekaterina Tihomirova, Edgars Sīklis and Aleksejs Šļapackis. In academic year 2018/2019, 3 graduates of the study program were included: Viktorija Babiča and Janīna Bočenkova.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

Student surveys are organized regularly at the end of each semester. The student surveys are designed so that the students' answers help evaluate the quality of the study courses and the academic staff, as well as give the students the opportunity to express their opinion and make suggestions for improvement of the instructor's activity and development of the study program. The students themselves and the Student Self-government of the Faculty of Engineering Economics and Management (FEEM) are actively involved in the survey and the result analysis. Student surveys are conducted in two ways and independently of each other:

- the student survey is conducted by RTU Study Department (the above-mentioned survey in ORTUS environment);
- the student survey is conducted by the FEEM Student Self-government.

Analysis of the student surveys from 2013/2014 to 2018/2019 shows that the study process should continue to focus on the practical application of achievements in management science, group work and discussions on the progress made. The use of situation analysis and problem-based methods should be continued. Based on the results of the student surveys at the end of each year, the content of the study courses is changed and new courses are included in the study program, e.g., based on the survey results in academic year 2013/2014, the study courses "Research Methodology" and "Corporate Finance" were changed in academic year 2014/2015. Instead of the study course "Research Methodology", the study course "Business Research Methods" (study project) was included in the study program. Its content focuses on the deepening of students' practical skills in carrying out applied research, the ability to formulate a research plan, to acquire the basic principles of the logical structure of scientific work and its use in the development of the Master Thesis. In turn, the study course "Corporate Finance", which required in-depth financial knowledge, was replaced with the course "Financial Analysis and Planning", which implied the development of important skills and competences required for Organizational Manager. In order to educate and train students whose previous education has not been related to entrepreneurship, in the first year of studies the study course "Business Economics" is implemented. To avoid duplication of the post-graduate study course "Project Management" with the undergraduate study course (derived from the survey carried out in the fall semester of academic year 2016/2017), the content of this study course was changed.

The survey among the graduates is conducted annually, depending on the period of the final examination, which can be either in January or in June. The survey results on the program show its positive features and opportunities for improvement, and the survey results are collected and used to improve the quality of the program. Participants of the survey:

- in academic year 2013/2014, 16 graduates or 59% participated in the survey conducted by RTU Study Department;
- in academic year 2014/2015, 21 graduates or 78% participated in the survey conducted by RTU Study Department;
- in academic year 2016/2017, 11 graduates or 44% participated in the survey conducted by RTU Study Department;
- in academic year 2017/2018, 16 graduates or 64% participated in the survey conducted by RTU Study Department;
- in academic year 2018/2019, 20 graduates or 100% participated in the survey conducted by

From 2013/2014 to 2018/2019, the analysis of the survey results shows that a majority of graduates are satisfied with the physical aspects of the studies (availability of study materials, e-learning environment), as well as a majority of graduates are fully or partially satisfied with the chosen study program. Since academic year 2016/2017, the questions of the survey have been partially changed and the question of whether graduates would recommend this program to prospective students has been included. The analysis of the answers to this particular question shows that in academic year 2016/2017, 73% of graduates would recommend or rather recommend this study program; in academic year 2017/2018, 77% of graduates would recommend or rather recommend this program; and in academic year 2018/2018, 60% of graduates would recommend or rather recommend this study program. In academic year 2018/2019, the number of students providing a neutral assessment increased (30%), compared to academic year 2017/2018 when the number was 19% and to academic year 2016/2017 when the number was 27%. In order to develop and improve the study process, graduates have recommended:

- to focus on the practical aspects of theory in lectures, analyzing and modeling practical examples;
- to review the content of the study courses so as not to repeat the topics covered in the undergraduate studies;
- to attract more visiting lecturers to diversify the content and perception of the study process;
- to more evenly distribute the workload of study papers and independent work through the semesters.

Using the results of the student surveys, the emphasis was placed on the practical application of theoretical knowledge in the study process of the program, more widely using a case study approach, group work and other methods.

Other comments on the study program made by the graduates include:

- broadening one's horizons;
- acquisition of new knowledge useful in daily life;
- adoption of a personalized approach to each student;
- implementation of the necessary improvements; namely, there were a number of study courses that were better to be taught in the first year of studies not in the second year, such as "Business Economics", which served as a good basis for further studies, but such study courses as "Corporate Social Responsibility and Business Ethics" or "Project Management" were better to be acquired later in study process.

The results of the survey on the specific program are collected and used to improve the quality of the program.

In order to meet the requirements of the labor market, the opinions of employers regarding students' skills and competences during the internship are collected and analyzed. The most valued skills are the skills of using technical tools (computer programs etc.), as well as the sense of responsibility and attitude towards the performance of duties, the ability to work both individually and in a team, taking the initiative where necessary.

**2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Erasmus is the most popular student exchange program in Europe. One of the aims of this program is to ensure the mobility of students from the European countries by promoting the development of higher education institutions in a united European context.

Erasmus+ that is a new European Union program for education, training, youth and sport was launched in 2014. In academic year 2013/2014, 1 postgraduate student –Dace Kalniņa – used the internship opportunity supported by the Erasmus+ program in Iceland, Reykjavik, Arctic ehf. Kennitala.

In the spring semester of academic year 2016/2017, students using the Erasmus+ program, went to study at higher education institutions of other countries:

- Rita Repele went to Brno University of Technology (the Czech Republic); RTU recognized the following study courses during her mobility: Part A – “Management” 4 CP, Part B – “International Business and Entrepreneurship” 3 CP, “Service Marketing” 3 CP, “Small Business Management” 3 CP, “Production Management” 4 CP, “Promotion of Company Competitiveness” 3 CP; a total of 20 CP;
- Paula Krumholce went to the University of Split (Croatia); RTU recognized the following study courses during her mobility: Part A – “Business Decision Making” 3 CP and “International Financial Management” 3 CP, Part B – “Strategic Management” 3 CP, “Organization Planning” 3 CP, “Audit” 3 CP, “Marketing Communication”, “Financial Modeling” 3 CP; a total of 21 CP;
- Jeļena Ļebedeva went to the Tomas Bata University (the Czech Republic); RTU recognized the following study courses during her mobility: Part A – “Top Level Decision Making” 2 CP, “Management Decision Making and Risk Management” 3 CP, Part B – “Brand Management” 3 CP, “Business Information Systems” 3 CP, “Business (B2B) Marketing” 2 CP, “Business and Competitiveness” 2 CP, “Management Communication and Social Dialog” 3 CP, “Marketing Application” 3 CP; a total of 21 CP;

In the fall semester of academic year 2017/2018, Paula Krumholce used Erasmus internship opportunities at *Road Mark Eesti OU* (Estonia) (from 4 September 2017 to 21 January 2018).

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

In order to ensure the informative basis of the study program, the current industry literature is reviewed and ordered according to the study courses included in the program, e.g., in order to ensure the needs of the study program in academic year 2018/2019, the following books were



ordered during the academic year:

For the study course "Leadership": [McChesney C.](#), [Huling J.](#), and [Covey S.](#) "The 4 Disciplines of Execution: Achieving Your Wildly Important Goals"; [Covey S.](#) "7 Habits of Highly Effective People"; [Sinek S.](#) "Start with Why: How Great Leaders Inspire Everyone to Take Action"; [Sinek S.](#) "Leaders Eat Last: Why Some Teams Pull Together and Others Don't";

For the study course "Contemporary Issues of Strategic Management and Marketing": McGrath R. "The End of Competitive Advantage: How to Keep Your Strategy Moving as Fast as Your Business"; [Kotler, Ph.](#), [Kartajaya H.](#), [Setiawan I.](#) "Marketing 4.0: Moving From Traditional to Digital"; [Kotter, P.J.](#) "Accelerate: Building Strategic Agility for a Faster-Moving World"; [Chernev A.](#) "Strategic Marketing Management", 9th Edition; [Kotler Ph.](#), [Keller K.](#), [Dr. Mairead Brady](#), etc. "Marketing Management", 3rd ed., Board book; Rebecca Lieb "Content – The Atomic Particle of Marketing: The Definitive Guide to Content Marketing Strategy";

For the study course "Change and Crisis Management": Lucinda L. Austin, Jin Yan "[Social Media and Crisis Communication](#)";

For the study course "Communication and Business Negotiations": [Hall S.](#) "Innovative B2B Marketing: New Models, Processes and Theory"; David Meerman Scott "The New Rules of Marketing and PR: How to Use Social Media, Online Video, Mobile Applications, Blogs, News Releases, and Viral Marketing to Reach Buyers Directly"; Stanton R. "[Strategic Corporate Communication](#)";

The section "Tirdzniecība" (Trade) of nozares.lv was ordered for the implementation of the program, taking into account that the internship places are also retail companies, which make up a significant percentage of the Latvian economy, as well as games have been purchased for the study course "Human Resource Development": "Pasaki sev. Pasaki citiem" (Tell yourself. Tell others.); "Vardarbība darba vidē – būtiskākie jautājumi" (Workplace Violence – Key Issues).

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

In total, 12 lecturers are involved in the implementation of the study program whose main place of work is RTU (99 % of them have a Doctoral degree and one has a Master degree). In order to ensure the quality of study courses and their correspondence to the needs of the industry and the labor market, for the 3 study courses (15 %) visiting lecturers are invited, who do not work at RTU but are specialists in their field. If at the beginning of the reporting period, there was only one visiting lecturer, then in academic year 2018/2019, the number increased and three study courses

were delivered by specialists of the field, sharing their experience in business management, creation of start-ups and implementation of innovations, as well as the use of coaching in business. During the reporting period, 4 lecturers obtained a degree of Dr.oec., thereby introducing scientific knowledge and the latest advancements in business into the study process, promoting the use of research methods and conducting in-depth research in the study process.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

11 lecturers possessing a Doctoral degree are involved in the implementation of the study program. Since 2000, Dr. oec., Professor, Leading Researcher **Elīna Gaile-Sarkane** has been written 130 scientific publications on topics such as the use of the electronic environment to increase business competitiveness, cross-sectoral methodologies for developing business skills, etc. She has participated in numerous conferences and written scientific articles published in the Web of Science and/or SCOPUS databases. She has also participated in various projects. She is a co-owner of two patents: a method for separating and wintering butter and similar substances, and a device for implementing the technique, as well as a holder for transporting unshaven paintings. She has experience in supervising Doctoral Theses; five Doctoral Theses have been defended under her supervision. The experience of scientific and research work in the integrated study process develops students' in-depth research skills, thus ensuring the sustainability of the organization. Dr. oec., Professor **Inga Lapiņa** has over 20 years of experience in higher education, research and project management. She ensures research components in her work with students through participation in scientific conferences and development of publications on topics, such as the impact of cultural factors on organizational development, management of intellectual capital, managerial expertise in the management of intercultural teams, human resources management models, knowledge management and corporate social responsibility aspects, etc. Students learn the realities of the sector needed for a real business by using a variety of creative approaches and innovative thinking to develop the entrepreneurial capacity. Dr. oec. **Nadežda Koleda** is an Associate Professor and Researcher, whose scientific and applied research is related to theoretical and practical solutions of financial stability of a company, financial analysis and planning issues, business finance skills. She has written 26 publications since 2007. Nadežda Koleda has participated in numerous conferences with presentations and has published research papers, which are included in conference proceedings indexed by the Web of Science and/or SCOPUS. Dr. oec. Associate Professor **Jana Eriņa** has authored a total of 49 publications, including study monographs, publications in RTU scientific journals, conference proceedings indexed by the Web of Science and/or SCOPUS. Jana Eriņa's research interests include project management, client capital management, banking, start-up business and innovation. Jana Eriņa has participated in international conferences in Italy (Milan) and elsewhere. The experience gained in both scientific and practical work is used in the study course "Innovations and Economics", by developing students' creative thinking in implementing innovations at organizations. Dr.oec. Associate Professor **Rita Greitāne** has over 20 years of experience in higher education, research and project development. Every year Rita Greitāne upgrades her skills in project management, marketing and

communication, e.g., by attending the Project Management Workshops organized by KIC on 31 October and 7 November 2018, and receiving certificate No.29139 for completing the course. In academic year 2018/2019, Rita Geitāne implemented a project together with the students ordered by the State Railway Administration (Contract No. 03000-3.1.2.-e/54) "Survey of the Railway Passenger Satisfaction with the Quality of Railway Passenger Services in Latvia in 2018", which involved 50 students and 1134 respondents, thus developing students' project management skills and application of project management methods. Rita Greitāne took part in the masterclass "Answer. Body Language in Business and Life", "Generational Marketing", participated in the competency development program on emotional abuse and boundaries in the workplace, conflict resolution skills, communication with passive student groups, as well as studied coaching basics. She uses this knowledge in the study courses and supervision of Master Theses in order to achieve the learning objectives of the study program. Rita Greitāne has participated in academic conferences with articles "Current Issues in Marketing and Strategic Management, Organizational and Teaching Methodological Challenges", "Study Programs and Course Quality Assurance in Leadership and Management". By participating in scientific and academic conferences, she brings together the latest findings in project management and student-centered education, which are integrated in the study course "Contemporary Project Management" and other study courses.

Dr. oec., Associate Professor **Iveta Ozoliņa-Ozola** is the author of 15 publications on human resources management issues. The experience gained in scientific and research work is used in the study process by integrating the latest scientific knowledge. Dr. oec., Associate Professor **Vladimirs Šatrevičs** has a total of 41 publications included in conference proceedings indexed in the Web of Science and/or SCOPUS, as well as in ERIH databases in journals of the INT1 or INT2 category and in anonymous peer-reviewed scientific articles with international editorial board and available in another indexed database. Scientific and research activities of Vladimirs Šatrevičs are related to the issues of strategic management of organizations. The experience gained is used in conducting the study course "Enterprise Management", in the development of the course content and conducting the classes. Dr. oec., Professor **Irina Voronova** has 105 publications, both in anonymous peer-reviewed collections of articles published in journals with international editorial board and available in an indexed database, and in scientific journals indexed in the Web of Science and/or SCOPUS. Her research activities are related to the risk management, with particular focus on fraudulent risks and company valuation techniques, which are integrated into the study courses to enable students to make decisions that promote organizational efficiency and sustainability. Dr. oec., Associate Professor **Nadežda Semjonova** has 23 finance related publications included in conference proceedings indexed in the Web of Science and/or SCOPUS, as well as publications with an international editorial board, and available in other indexed databases. Associate Professor Nadežda Semjonova's research activities are related to the choice of financial security and optimal policy, as well as problems of the development of creative economy and commercialization of innovations. Participation in conferences and seminars provides an insight into the latest trends in the industry and allows her to gain and share experiences and to adopt good practices. Dr. sc.ing., Professor **Jānis Mazais** is a Leading Researcher at the Institute for Quality Engineering. Jānis Mazais is the author of 44 publications. His research interests are related to the quality management and quality assurance, product compliance, integrated management systems and risk management. His articles are included both in collections of scientific articles/scientific books indexed in the Web of Science and/or SCOPUS and in local and international conference proceedings. The results of the research activities are integrated in the study course "Quality Technologies and Management" by developing an understanding of quality management methods and systems and their use in achieving organizational goals. **Anita Straujuma**, Dr. oec., assistant professor. Education: Master degree in computer science, Master degree in Business Administration (MBA), Doctoral degree in economics. Professional experience: activities in the IT sector for more than 10 years; participation in the establishment and management of the leading medical software

manufacturer in Latvia; more than 25 years of practical experience in management of public organizations; participation in international research projects and conferences; experience in organizing international conferences; participation in the creation of a scientific journal and development of pedagogical experience in the economic sector.

According to the requirements of Section 39 of the Law on Higher Education Institutions “Academic Staff of Vocational Study Programs” – by taking into account the necessity to acquire practical skills and knowledge, the position of an associate professor, lecturer, and assistant in the subjects of the vocational study program profile may be held by a person with higher education without the doctoral degree or without vocational Ph. D. in Arts if he or she has sufficient practical work experience corresponding to the subject to be taught. Mg.oec. lecturer **Leonards Budņiks** is a Technical Consultant with the relevant work experience in the field of construction (Ltd. Mesako and elsewhere) to ensure the effective operation of IT systems. He is an MS Excel Trainer with training experience at companies such as MOGO Finance, Elfa Distrelec, Solvey and others. Leonards Budņiks is also a Certified Coaching Trainer at Ericson Coaching International, who uses his knowledge and skills to work with students to develop management information system skills in organizational work, data processing and visualization for decision-making. Two visiting lecturers with practical work experience and knowledge are involved in the implementation of the study courses. The courses “Corporate Governance”, “Change and Crisis Management” are led by the visiting lecturer **Katerīna Čerņavska** who has 10 years of experience in sales, customer service, project management, strategic planning in an organization, etc. She has led 10 projects in strategic planning, change and performance management in organizations, such as Ķekava Municipality – Change Management Project “Assessment and Improvement of the Management System of an Administrative Organization”, SJSC Latvia State Radio and Television Center – Consultancy Project “Change Management”. She was a Project Manager of the mentoring program for managers, such as Rural Support Service – Consulting and Training Project “Improvement of Strategic Goals and Development of Key Performance Indicators (KPIs)” and others. She has led two projects in sales management, participated in 8 conferences and business incubators, such as on 30 May 2019, LIAA Bauska Business Incubator, Workshop and Individual Consulting for the Start-ups “Export Power for Beginners”, on 9 May 2018, LIAA Daugavpils Business Incubator, Workshop “Effective Sales”, on 8 November 2017, LCCI Business Forum in Jēkabpils, with presentation “The Digital Revolution in Sales, or the Decline of the Order-Taking Era”, on 24 May 2016, Elva Baltic Conference, with presentation “Where to Look for the Tools for an Effective Manager?”. She is also the author of professional publications on organization management issues. Visiting lecturer of the study course “Leadership: Strategies and Tactics” **Rolands Ozols** has 18 years of experience in both international organizations (Latvian National Commission for UNESCO, member of UNESCO Global Education Monitoring “Communities of Practice”) and national ones. He has taken part as a member of the SEQS working group for the accreditation process changes in the educational institutions of Latvia. He has experience in the field of consultancy (FranklinCovey Education Program Trainer in Latvia); the fields covered are personal leadership, institutional and organizational management and leadership, organizational culture in educational institutions. Rolands Ozols is the Chairperson of the Board of the VITAE Institute for Lifelong Learning and Culture and the Director of Rolands Ozols Center for Non-formal Education. He has participated in 10 major projects, moderated local and international conferences, and is the author of several publications such as Ozols, R., Oganisjana, K. Evaluation and Impact. In collaboration with the National Center for Education, he is a co-author of the e-book “Collaborative Teacher Learning” in the Erasmus+ project “European Methodological Framework for Facilitating Teachers’ Collaborative Learning (EFFeCT project)”; author of the National Education Center publication “Atbalsta materiāli pilsoniskās audzināšanas un pilsoniskās līdzdalības sekmēšanai” (English – Support Materials to Promote Civic Education and Civic Participation). Academic staff of the Department of Innovation and Entrepreneurship involved

in the implementation of the study program: Elīna Gaile-Sarkane, Iveta Ozoliņa-Ozola, Rita Greitāne improve their qualification in European Social Fund project No.8.2.2.0/18/A/017 “Strengthening of Academic Staff of Riga Technical University in Strategic Specialization Areas” by undertaking internship of 200 hours at various Latvian companies and institutions.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Dr.oec., Professor Inga Lapiņa’s experience in higher education, research and project management and her interest in providing quality education that meets real business needs, creativity, entrepreneurial spirit and innovative thinking among students is used to design and deliver the content of the study course “Corporate Social Responsibility and Business Ethics”. Since 2008, personal experience in designing new curricula and improving the quality of studies through the involvement in more than 20 international groups of experts in Europe for quality assessment of higher education (institutions and programs) has been used to introduce new approaches to content, selection and use of diverse teaching and learning methods in accordance with learning situation and the needs of the group. Professor Elīna Gaile-Sarkane, the leading researcher with personal experience in scientific and research work, engages students in the study course by developing their ability to create a work environment for organizations that both meets regulatory enactments and stimulates creativity in the work environment. The experience gained by Associate Professor Rita Greitāne both in her research work during the development of her Doctoral Thesis “Economical Assessment of Service Quality in Small and Medium-Sized Enterprises”, and in her practical experience in educational projects and the aforementioned project commissioned by the state institution ensure the linkage between science and practice during the study process. Students get the opportunity to develop, implement and manage projects, to define responsibilities

and powers within that project, and to develop business communication skills with stakeholders. The research of Associate Professor Iveta Ozoliņa-Ozola is related to employee turnover problems and management solutions in companies. The results of the research are integrated into the study course "Human Resource Development" in order to develop students' understanding of personnel development methods and to use appropriate personnel development methods in order to achieve objectives of the organization. Associate Professor Nadežda Koleda's practical activities and interests are related to KPI assurance, quality management, change management, business process improvement and implementation, etc. Nadežda Koleda has experience in financial project management, budgeting and auditing, training and coaching, as well as customer and operational support in a multicultural environment. Nadežda Koleda integrates her experience into the study course "Financial Analysis and Planning", promoting an understanding of the use of financial planning and analysis methods and developing the ability to use them in organizational decision-making. Under the guidance of Associate Professor Nadežda Semjonova, students address the topical issues of the industry through active engagement and cognition, visibility, systematicity and continuity; the study process is developed in accordance with the principles of the student-centered approach by developing the ability to plan, organize and manage, ensuring the sustainable growth of the organization. Professor Irina Voronova has conducted seminars on the following topics: "Methods of Risk Analysis of Economic Sectors and their Practical Application in the Audit Process" at the State Audit Office and "Criminal Law Approach to Accounting Analysis" in the Association of Administrators (2019). The experience gained in research and seminar management is integrated into the study courses "Business Risks", and "Enterprise Management" by creating the content of the study courses, as well as working daily together with students and supervising the elaboration of Master Theses.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The academic staff members involved in the program cooperate within the study courses to ensure the linking of the study courses, e.g., students have to develop a research plan and carry out scientific literature analysis on the chosen Master Thesis in the study course "Business Research Methods" (study project). The tasks of the internship, in turn, are related to the theme of the Master Thesis.

In academic year 2018/2019, 62 students (including part-time extramural students) were studying and 12 academic staff members delivered the study courses, so the ratio was 5:1.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	APPENDIX 5.pdf	5. Pielikums - Statistikas dati par studējošajiem studiju programmā IGU0.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	APPENDIX 6.pdf	6. pielikums Atbilstība MK Nr.512.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	APPENDIX 7.pdf	7.pielikums. Atbilstība profesijas standarta prasībām.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	RIGU_mapping_EN.xlsx	Priekšmetu kartējums.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	APPENDIX 9.pdf	9.pielikums. Plānojums.pdf
Descriptions of the study courses/ modules	Study course descriptions-IGU0 ENG.zip	Studiju kursu apraksti-IGU0 LV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-IGT0.pdf	Diploms-IGT0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement between LLU and RTU 2019.pdf	Vienošanās_LLU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Sample for study agreement.zip	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Business Finance

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Business Finance</i>
Education classification code	<i>45345</i>
Type of the study programme	<i>Academic master study programme</i>
Name of the study programme director	<i>Natalja</i>
Surname of the study programme director	<i>Lāce</i>
E-mail of the study programme director	<i>Natalja.Lace@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr. oec.</i>
Phone of the study programme director	<i>67609394</i>
Goal of the study programme	<i>The goal of the Master Program "Business Finance" is to equip students with profound theoretical knowledge appropriate to Academic Master Degree and the National Standard of Academic Education in business finance management; to develop research skills of enterprise finance manager and asset management specialist for financial decision making in dynamically changing business environment.</i>
Tasks of the study programme	<i>1) to provide students with broad knowledge of business finance management and related fields to enable them to make financial decisions in today's changing business environment;</i> <i>2) to provide such a study process organization which promotes students' research competence in company's financial management and financial asset management, considering problems from different perspectives;</i> <i>3) to promote students' skills to work in: a) companies of real economic sector to manage financial resources and b) financial services for asset management, observing the norms of business ethics and principles of corporate social responsibility;</i> <i>4) to promote through different contexts students' skills to: learn independently; think critically, analytically and creatively; use new digital technologies; speak and reason based on scientific arguments and sound judgement; solve problems individually and in cooperation with colleagues;</i> <i>5) to promote students' ability to reflect on their own performance in order to self- manage professional development, broaden career choices and be prepared for further studies and research in doctoral programs.</i>



Results of the study programme	<p><i>Students are able to:</i></p> <p>1) <i>analyze the business environment in which organizations operate and its impact on strategic and operational decision-making at national and international level, basing their decisions on the understanding of economics, management and financial management concepts and theories, including the financial market processes;</i></p> <p>2) <i>apply methods of: a) financial management of companies and b) acquisition and interpretation of financial and business information for making ethical financial decisions with minimal risks based on innovative solutions;</i></p> <p>3) <i>to apply the fundamental and technical analysis of the equity stock market, as well as to evaluate the company's capital for investment decision making and portfolio formation;</i></p> <p>4) <i>develop solutions to business financial problems using appropriate theoretical models, frameworks, and decision-making support techniques;</i></p> <p>5) <i>study, formulate, ground and critically analyze complex scientific and professional problems, prepare a report, discuss research results and write scientific publications;</i></p> <p>6) <i>use and critically evaluate new information and knowledge applying quantitative and qualitative methods to solve business and financial problems;</i></p> <p>7) <i>to develop their knowledge and skills to: think critically; express their thoughts logically; identify new opportunities; use new digital technologies and solve problems creatively working individually or in groups;</i></p> <p>8) <i>reflect on their performance and make grounded decisions.</i></p>
Final examination upon the completion of the study programme	<i>Master's Thesis</i>

## Study programme forms

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>Bachelor degree or fifth level professional qualification in economics, finance or commercial science and administration, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Science in Business Financial Management</i>
Qualification to be obtained (in english)	<i>-</i>

### Places of implementation

Place name	City	Address
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Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050
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### Full time studies - 2 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>english</i>
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree or fifth level professional qualification in economics, finance or commercial science and administration, or comparable education. English language proficiency level test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master Degree of Social Science in Business Financial Management</i>
Qualification to be obtained (in english)	-

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Changes have been made to the implementation form. Previous accreditation allowed the following forms: full-time intramural studies, full-time and part-time face to face and extramural studies. The form of extramural studies was not implemented during the reporting period, so this form analysis was not provided and is not included in an existing document.

The structure of the program and other formal conditions comply with the requirements set forth in national legislation and decisions of the RTU Senate. As a result of the academic study process students acquire theoretical knowledge and competences that correspond to the knowledge, skills and competence of the framework level 7 defined in the Latvian Education Classification and allow them to carry out professional activities appropriate to the academic field. The structure of the study program is shown in the Annex 9.

In the academic year 2014/2015, the process of improvement of study program structure was started according to the Latvian State Standard on Academic Education (the Regulation of Government of Latvia No. 240, 13 May, 2014) and RTU Unified Requirements for Study Programs (RTU Senate Resolution No. 588 23 March, 2015).

In the academic years 2016/2017 and 2018/2019 the process of improvement of study program structure was continued. Changes end in December 3, 2019.

The changes in the content of the Master's study program "Business Finance" (IMF0) was approved in July 24, 2017 by RTU Vice-Rector for Study affairs No. 02000-1.1/66 based on the Resolution no. 22000-1.2/61 of FEEM Council on July 7, 2017.

The volume of Part A of the study program was changed from 35 CP to 30 CP.

The changes in Part A are mainly related to the increase of CP in existing study courses by merging some of study courses.

For example, the study course "IET510 Economic Theory 4 CP" was combined with the course "IEU511 Financial Markets and Investment 4 CP"; the course "IUE589 Corporate Finance 3 CP" was combined with the course "IEU520 Financial Risks 3 CP". As a result, two new study courses "IUF733 Financial Economics 5 CP" and "IUF738 Corporate Finance 6 CP" were created.

The study course "IUE589 Business Forecasting 4 CP" was transferred to Part B and Part A was supplemented with the course "IUE504 Financial and Economics Information Analysis Methods 2CP".

The volume of Part B of the study program was changed from 21 CP to 26 CP.

Specializations (Financial economics and Financial Management) were canceled in Part B1, but students were given the opportunity to choose courses for their specialization: "IUF739 Strategic Financial Management 6 CP" or "IUF737 Portfolio Management 6 CP". In addition, several study courses of 3 CP were integrated into two alternative study courses "IUF741 Research Project in

Business Finance 4CP” and “IUF740 Internship 4 CP”, where students are able to continue their specialization.

In the academic year 2018/2019 the process of improvement of study program structure was continued. Part B “Humanities and Social Studies courses” were clarified. The changes were approved in June 11, 2019 by RTU Vice-Rector for study affairs Nr.02000-1.1-e./44 based on the Resolution Nr.22000-1.2 /58 of FEEM Council on June 4, 2019. The changes ended with the order of RTU Vice-Rector for study affairs of December 27, 2019. Nr.02000-1.1-e./113 based on the Resolution Nr.22000-1.2 / 121 of FEEM Council on December 3, 2019.

**1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

The number of students of the MSc study program “Business Finance” studying in Latvian was as follows:

The academic year 2013/2014 – 14 students

The academic year 2014/2015 – 4 students

The academic year 2015/2016 – 1 student

The academic year 2016/2017 – there were no students

The academic year 2017/2018 – 3 students

The academic year 2018/2019 – 4 students.

The number of students studying in English was as follows:

The academic year 2013/2014 – 28 students

The academic year 2014/2015 – 55 students

The academic year 2015/2016 – 67 students

The academic year 2016/2017 – 54 students

The academic year 2017/2018 – 69 students

The academic year 2018/2019 – 59 students.

Eight graduates of the program received a diploma with distinction. In 2013/2014 study year, the program graduate Gintare Rumbinaite was included into The RTU Golden Fund of Graduates.

Annual changes in the number of students studying in the Latvian language have decreased significantly, which is explained by the lack of state-funded places for the study program; while the number of students studying in the English language tends to increase because of high ranking position of the study program in the „Eduniversal Business School ranking” (<http://www.eduniversal-ranking.com>) and obtained international ACCA accreditation.

Statistical data on students during the reference period is shown in Annex 5.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The degree “Master of Social Sciences in Financial Management” corresponds to the title of the MSc study program “Business Finance” as that provides competencies in business finance management.

Also the goal of the study program corresponds to its title and the degree to be acquired, as it foresees for students to get the opportunity to acquire competencies in business finance management and decision making in today's changing business environment.

The five objectives of the study program intend to promote students' competencies to: perform management of financial resources and financial investments comprehending related fields; conduct research; act as professionals in the 21st century (learn on their own, think critically, analytically and creatively, solve problems, make decisions, collaborate, reflect on their performance, etc.). All this ensures the achievement of the study program goal.

The main outcomes of the study program are the development of the personality, intellectual and professional competencies required for a specialist of financial management in modern business. This means that students of the study program are able to get oriented in the business environment and assess changes and processes in the market by conducting research, making ethically sound decisions in financial management, and developing their competencies. Admission requirements (Bachelor's degree of Social Sciences in Economics or Management or Higher Professional Education according to the study program) were set in order to achieve corresponding outcomes of the study program and ensure continuity in students' education. Thus, the outcomes are based on previously acquired education, implementing the objectives of the study program through multiple content of the study courses which provides the achievement of the program goal; that forms the basis of the degree to be obtained.

## **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

### **2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The study courses included in the study program were created in compliance with the in-force legislation:

- “Regulation on the Classification of Education in Latvia”, No. 322 of the Cabinet of Ministers of the Republic of Latvia, 13 June, 2017;
- “Law on Higher Education Institutions”;
- “RTU Study Procedural Rules”;
- “RTU Regulation of the Study Course Register”;
- Resolution of RTU Senate “On Assessment of Study Results”, 27 May, 2017

Study course descriptions are regularly updated in accordance with the needs and trends of the industry, labor market and research.

For example, while preparing for the ACCA (Association of Chartered Certified Accountants) international accreditation, the professors of the study program “Business Finance” and representatives of ACCA Global collaborated to analyze the content of the entire program and its certain courses and to determine their correspondence to the ACCA and CFA qualification requirements. Subsequently, appropriate changes were made in the contents of the study courses “Financial Reporting and Analysis”, “Corporate Finance”, “Management Accounting”, “Financial Analysis and Planning” and “Financial Economics” to ensure 80% matching of the content of these courses to the ACCA requirements, as well as for creating the basis for the CFA accreditation which is planned to join in 2021.

The professors involved in the study program constantly improve their professional competences and awareness of the trends in their fields by attending workshops and lectures organized at the national and international level and, if necessary, make corresponding changes in their study courses (in the goals, objectives, learning outcomes, recommended literature, etc.).

Working in different companies in the fields of business, finance, investments and research, the professors transfer their practice and professional experience to the study process and link the study content to the needs, trends and demands of the labor market, thus promoting the development of the students’ corresponding competences.

The professors of the study program involve students in various research projects, therefore, the contents of study courses are updated in correspondence with the trends of science development. For example, in 2016/2017 study year within the study course “Modern Research Methods: Theory and Practice”, students participated in the project “Involvement of the Society in Social Innovation for Providing Sustainable Development of Latvia” of the National Research Program EKOSOC-LV. Students learnt how to collect and analyze data, interpret the results, write reports and research papers, present the research findings at international conferences, participate in scientific discussions and prepare the papers for publication. “Session's Best Paper Award” has been obtained from the “21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017” for the research paper “Barriers to Social Innovation and Ways of Overcoming Them in Latvia”, Orlando, Florida, USA, 08-11.07.2017. Students are among the authors of the monograph “Social Innovation: Challenges and Solutions in Latvia”. In 2017/2018 study year the students of the study program carried out a research project “The 7 Habits of Highly Effective College Students” commissioned by “FranklynCovey Education, Latvia”. In 2018/2019 study year students were involved in the international competition “CFA Research Challenge” within the framework of the study course “Financial Reporting and Analysis” conducting in-depth study of a public company for developing recommendations for investors.

Publications of program’s students:

Lace, N., **Madjitov, M.**, Ciemleja, G. (2014) *Measuring of Financial Reporting Quality: Baltic Public Companies*. In Conference Proceedings XII International Scientific Conference "Management and Engineering'14, Bulgaria, Sozopol, 22-25 June, 2014. Sofia: Technical University - Sofia, pp.

Titko J., **Goltzman A.** (2015) Payment Card Business as a Driver for Bank Performance// In Conference Proceedings XIII International Scientific Conference "Management and Engineering'15, Bulgaria, Sozopol, 21-24 June, 2015. Sofia: Technical University - Sofia, pp. 966-975.

Lāce, N., **Šiškina, A.** *Loan Portfolio Quality Management: Latvian Banking Sector.* From: XIII International Scientific Conference "Management and Engineering '15": Conference Proceedings, Bulgaria, Sozopol, 21-24 June, 2015. Sofia: Sofia Technical University, 2015, pp. 856-865, ISSN 1314-6327.

**Shkurko, I.,** Lāce, N., Tamosiuniene, R. *Impact of Capital Structure Decisions on Company's Profitability: Evidence from Ukraines Companies.* From: XIV International Scientific Conference "Management and Engineering'16": Conference Proceedings, Bulgaria, Sozopol, 19-23 June, 2016. Sofia: Technical University Sofia, 2016, pp.782-796

**Fashchuk, Y.,** Bistrova, J., Lāce, N. Analysis of Dependence of Capital Efficiency on Company Size: Evidence from CEE Countries. From: *Материалы 6-ого Международного научно-практического семинара 12-й Международной научно-технической конференции "Наука - образованию, производству, экономике"*, Минск, 26.-28. janvāris, 2017. Минск: Белорусский национальный технический университет, 2017, pp. 206-210, ISBN 9789856963448.

Oganisjana, K., **Eremina, Y., Gvatua, S., Ngongo Kabwende, B., Joseph Chukwu, O.** Barriers to Social Innovation and Ways of Overcoming Them in Latvia. *Journal of Systemics, Cybernetics and Informatics*, 2017, Vol.15, No.5, pp.33-38. ISSN 1690-4524.

Oganisjana, K., **Eremina, Y., Gvatua, S., Kabwende, B., Chukwu, O.** Barriers to Social Innovation and Ways of Overcoming Them in Latvia. In: *The 21st World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2017): Proceedings. Vol.2*, United States of America, Orlando, 8-11 July, 2017. Winter Garden: International Institute of Informatics and Systemics (IIIS), 2017, pp.13-18. ISBN 978-1-941763-60-5.(Scopus)

**Begulova, Z.,** Lāce, N. The Role of National Culture in the Relationship between Capital Structure and Investment Decisions of European Information Sector Companies. From: *Мировая экономика и бизнес-администрирование малых и средних предприятий: материалы 15-го Международного научного семинара, проводимого в рамках 17-й Международной научно-технической конференции «Наука – образованию, производству, экономике»*, Belorussia, Minsk, 24-25 January, 2019. Минск: Право и экономика, 2019, pp. 10-18

**Eremina Y.,** Lāce N., Bistrova J. *Digital Maturity and Corporate Performance: The Case of the Baltic States.* J. Open Innov. Technol. Mark. Complex. 2019, 5(3), 54 <https://doi.org/10.3390/joitmc5030054> (Scopus).

Master's program student Yulia Eremina participated in the 4th World Congress of Latvian Scientists together with RTU researchers N. Lāce, J. Bistrova and T. Laizans. All participants from RTU received an official message of thanks from the Minister of Education and Science K. Sadurskis.

Meeting the demands of the labor market, which gives preference to those graduates who have international professional certificates for proving that their professional competences correspond to the requirements of the labor market, the study program "Business Finance" received ACCA international accreditation on 16 January, 2019. The content of the study program as a whole and the contents of its two study courses "Financial Reporting and Analysis" and "Corporate Finance" were recognized as being at international level. The relevant ACCA international accreditation documents are available in the Faculty of Engineering Economics and Management 6 Kalnciema Str., room 203.

The “Master's Degree in Social Sciences in Business Financial Management” is awarded based on the achievements and findings in the field of financial management as: 1) the content of the study program integrates contemporary theory and practice in business finance management and related fields; 2) students study the latest scientific literature related to the topic of the Master's thesis; 3) they present the results of their research and participate in scientific discussions.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program “Business Finance” was created on the basis of the world experience in the implementation of similar study programs, the Latvian State Standard on Academic Education, RTU Unified Requirements for Study Programs, as well as ACCA (Association of Chartered Certified Accountants) and CFA (Chartered Financial Analyst) professional qualification requirements, ensuring the coherence of study courses for the fulfillment of the objectives of the study program, achievement of its goal, learning outcomes and other indicators.

The compulsory study courses of the study program amounting to 30 CP offer in-depth theoretical knowledge in business finance management, as well as promote the development of research skills necessary for obtaining an academic Master's degree in Financial Management.

Professional specialization study courses of 22 CP form the basis for preparing corporate finance managers and financial investment management specialists; it means that graduates are able to solve financial problems and make decisions in today's changing business environment.

Humanities and Social Sciences study courses, on the other hand, amounting to 4 CP, promote the 21st century topical competences, such as: learning and developing independently, thinking critically and creatively, reflecting on one's performance, etc.

Free elective study courses (4 CP) offer students the opportunity to choose topics according to their professional needs and interests.

In addition to successful completion of the curriculum, students must also conduct Master's research and write a Master's thesis for public defense showing that they are mature and independent researchers and professionals in business finance management.

Thus, the goals, objectives and learning outcomes of all the study courses lead to the achievement of the overall goal, objectives and learning outcomes of the entire study program without overlapping or duplication (see Annexes 6, 8, 9, 10).

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred**



## **principles are taken into account in the implementation of the study process.**

The study courses of the study program “Business Finance” are implemented by flexible combination and application of various teaching and learning methods, considering the needs and interests of the students and motivating them to work independently with the guidance and support of the teaching staff. Students receive feedback on their work from professors who provide guidance on their learning process and provide individual counseling when needed. Students are aware of the evaluation criteria elaborated at RTU with the initiative of the Students’ Parliament to base assessment of students’ achievements on their work throughout the semester, and not just on the results of their examinations. Thus, the realization of the study program follows the basic principles of student-centered teaching and learning (see Annex 10).

The teaching and learning methods are chosen due to the goals, objectives and learning outcomes of the study courses: interactive lectures and seminars, reading of scientific or professional literature, case studies, research projects, discussions, group work, individual calculations, tests, etc.

For example, in the study course “Financial Analysis and Planning”, students use various methods to assess the financial health of a company, to identify unused reserves and to make proposals for improvement. In order to do this, students need to be aware of the internal relationships and interactions between different financial indicators. It is trained and promoted by offering students the financial game “Quest”, which is implemented in groups in the form of competition.

Learning to conduct qualitative content analysis in the study course “Modern Research Methods: Theory and Practice”, in the beginning students conduct experimental interviews of each other and then work together under the professor’s supervision to analyze the qualitative data for understanding how categories are developed. But in the final research project, students work in pairs in order to ensure the validity and reliability of the study according to the rules of qualitative content analysis; it is to be done in small groups to investigate the research question and reveal deep understanding of the meaning of categories.

In the study course “Portfolio Management”, after having acquired its theoretical basis, students work in the computer room individually to analyze real-time financial market data and develop portfolios of financial instruments with minimal risks and maximum return for investors; afterwards the portfolios are back-tested.

Thus, the teaching and learning methods of students are developed in accordance with the content, goal, objectives and learning outcomes of the study process and are used flexibly according to the level of development of students’ competences.

According to the Resolution of RTU Senate, 29 May 29, 2017, (Minutes No 610), “Assessment of Study Outcomes”, the examination grade is not to exceed 50% of the final grade of the course, but the second half of the grade is to be determined according to other activities during the semester (projects, individual and group work, etc.). The type, number and assessment criteria of the course are determined by the professor responsible for the study course.

## **2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and**

**the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The compulsory elective study course "IUF740, Internship", 4 CP, is implemented in companies with the aim to systematize, improve and expand students' knowledge and develop their professional skills in business finance management. During the internship students analyze business processes, develop optimization options, write a report, and present their key findings publicly. Internship is therefore closely linked to the learning outcomes of the study program, as it enhances students' ability to develop business finance solutions based on economic, managerial and financial management concepts. Besides, this practice promotes their ability to think critically, creatively, reflect on their performance and make sound decisions. (see Annex 8).

The study program "Business Finance" supports students to achieve the objectives set for internship, because it is intended for the second study year; for its successful implementation the necessary competence base is created in the first study year. In cases when students have previous work experience in the field of business finance management evidenced by appropriate documents, this experience could also be equaled to the study course "IUF740 Internship" if the Council of the Institute of Business Engineering and Management of the Faculty of Engineering Economics and Management, as well as the Study Direction "Management, Administration and Real Estate Management" Committee confirm this compliance.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The themes of the Master's theses bring to the fore the problems of corporate financial management and financial investment management. This responds to the needs of the economy and the labor market as the Master's research analyzes various factors affecting the financial viability and sustainable development of the company, as well as develops strategies and tools for the efficient functioning of the financial market.

The lack of knowledge of mechanisms for financial problem solutions leads many companies to bankruptcy, as evidenced by statistics in the Republic of Latvia and the European Union.

In the context of financial investment, the problem of qualitative and quantitative factors which affect the long-term value of shareholders' capital is becoming increasingly important.

The relevance of the topics of the Master's theses to the current research in the field of business finance management is ensured by studying the scientific literature, documents and statistics in order to identify and formulate research problems that reveal the gap between the current and desired state of research in business finance management.

During the period under analysis (from 2013/2014 to 2018/2019 academic year) 7 students from Latvia and 49 international students defended their Master's theses. The theses of the students from Latvia were assessed with the grades "9" (43%) and "8" (57%); there were not lower grades. The international students' grades were distributed as follows: "10" - 14%; "9" - 31%; "8" - 23%; "7"

- 12%; "6" - 6%; "5" for 10% and "4" for 4%.

This difference between the assessments of students from Latvia and international students could be explained by the fact that in the Master's program students from Latvia already have research experience, as they conducted research at Bachelor's study at the University and scientific research in secondary school. As for international students, not all of them have research experience, as in India, for example, a Bachelor's degree can be obtained for passing exams in study courses and for writing course paper without a Bachelor's research. Therefore, for some international students, scientific research causes challenges as a new experience.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

RTU students evaluate their study courses twice a year in the end of each semester. Teaching staff, having analyzed the results of students' survey, make appropriate changes in the content of study courses, methods and materials in order to improve the quality of studies. This can be judged by analyzing the students' survey results in dynamics. For example, according to the results of the survey, students' assessments of the course "IEU515 Financial Analysis and Planning" in 2018/2019 are higher than they were in the previous academic year 2017/2018:

1. The average grade for the statement "In the first lesson, the lecturer introduced the syllabus, informed how the learning outcomes would be evaluated, and explained where they would be needed in the future" was 90% in 2017/2018 academic year and grew to 97% in 2018/2019 academic year.
2. For the statement "The lecturer provided all necessary support to help the students to achieve the defined learning outcomes" the average grade was 81% in 2017/2018 academic year, but it reached 90% in 2018/2019 academic year.
3. Significant growth (11%) in students' assessment was from 78% to 89% for the statement "The lecturer encouraged creative thinking (innovations, scientific research) and the connection of theory and practice".
4. The average assessment of the study course for the fourth statement "The lectures suggested teaching aids (video lectures, books, etc.), the recommended teaching aids were available (in RTU Scientific Library, e-learning environment or elsewhere) and these helped to master the study course" grew by 9% from 71 % in 2017/2018 to 80% in 2018/2019 academic year.
5. But the highest average grade growth for 19% (from 71% to 90%) was for the fifth statement "It was possible to get lecturer's advice in a timely manner (consultation times were also indicated in the e-learning environment)".
6. Recognition of the improvement of the quality of the study course implementation was also observed in all the other statements, which speaks of the systematic work of the lecturer taking into consideration the wishes and opinions of the students.

The program administration regularly meets with students to be more informed about their views of the improvement of the study program. For example, in a conversation with Yevgeny Seliverstov, a Master's student of the study program "Business Finance", he complained about the situation in

which the time and number of exams in the ACCA certification process were not decreased because the subjects acquired at the university were not considered as an exemption. This problem was solved by obtaining international ACCA exemption accreditation for five study courses. Students of the Master's study program "Business Finance", passing two study courses (IEU525 Financial Statements and IUF738 Corporate Finance) in accordance with the ACCA accreditation requirements, obtain relief in the certification process for five ACCA certificate program study courses.

Each study year the RTU Study Department organizes a survey of graduates. The results of the survey on the period under analysis show that the graduates of the study program "Business Finance" are satisfied with the acquired knowledge and skills, the premises where the studies are held and the presence of study materials in the e-learning environment. Graduates continue to communicate with program professors, share their work experience, participate in the study process, and give advice to program students.

The study program is included in the international ranking "Eduniversal Business School ranking" (<http://www.eduniversal-ranking.com>). Also the graduates of this study program participate in the formation of the ratings with their evaluations. The rating of the study program "Business Finance" is growing steadily. In 2013/2014 academic year among the 200 Master's programs on Corporate Finance from Central and Eastern European Universities this Master's study program took the 11th place; in 2014/2015 – the 10th place; in 2015/2016 – the 6th place; in 2016/2017 – the 5th place, in 2017/2018 – the 7th place, and in 2018/2019 – the 4th place.

Majority of the students are international students who, after graduating from the program work in different countries around the world; therefore, it is difficult to get feedback from their employers to analyze their views on the graduates' competences. Those international graduates who stay in Latvia get jobs in various international companies and commercial banks and work successfully in those. That proves employers' satisfaction with their professional competences. For example, Yuliya Eremina, Timurbek Sharifov and Sunatullo Kurbonov - graduates of 2017/2018 academic year work in different departments of SEB Bank; Zarina Begulova – a graduate of 2018/2019 study year works for an international company in Latvia.

Also in the study course "IUF740 Internship" employers are very positive about the students of the study program, their professionalism, good knowledge, growth potential, initiative and readiness to solve company problems.

Students and graduates of the study program participate in research conducted by Alphinox Quality AS, a subsidiary of the Swiss company Herens Quality Asset Management. As the company highly appreciates the competencies of the students and graduates, RTU Faculty of Engineering Economics and Management was invited to provide academic support to the company and participate in the jury of the annual contest "Corporate Excellence Award Baltics".

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Students of the study program use the ERASMUS + mobility opportunities in the 3rd semester after completing the compulsory study courses in the first study year. Students, together with the program director, evaluate the offers and choose the most appropriate one, considering the needs

and interests of the students, as well as the opportunity to align courses in the Business Finance program with those offered at ERASMUS + partner universities. Students also have the opportunity to take free elective courses at 6 ECTS. In cases when the content of the 3rd semester is not provided by the ERASMUS + partner universities, students of the program have the opportunity to take the missing subjects individually upon return. Students go to ERASMUS + Internship during the summer semester after the first study year or after graduating from the program. A positive evaluation of this practice is assimilated to the study course "IUF740 Internship" as its program is designed, discussed, accepted and signed by the program director and the student before leaving for the ERASMUS + Internship. Incoming ERASMUS + students choose courses from the study program "Business Finance" which are recognized at their universities.

During the recent six academic years, the mobility opportunities of Erasmus+ for study have been used by 14 students of the program.

14 students have also used internships. Some students used Erasmus + for both study and internship.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The study base of the study program "Business Finance" corresponds to the specifics of the study program as it is implemented by professors with the appropriate education, professional competences and scientific research experience, which ensures the achievement of the study goal and learning outcomes.

The implementation of the study program is coordinated by the Institute of Business Engineering and Management of the Faculty of Engineering Economics and Management (FEEM), while the content and quality are ensured by the Department of Corporate Finance and Economics in cooperation with other departments of RTU. Currently, the Department of Corporate Finance and Economics employs 15 lecturers and researchers, incl. one professor, three associate professors, four docents, one lecturer, one researcher and five research assistants. Also three professors from two departments of the RTU FEEM (Department of Innovation and Business management, Department of Labor and Civil Defense); one guest professor from University of Applied Sciences Business, Art and Technology (RISEBA) and one professor from RTU Faculty of e-Learning Technologies and Humanities are involved in the implementation of the study program. Each year visiting lecturers from other countries (Italy, UK, Czech Republic, Bulgaria, Croatia, Lithuania and Estonia) are invited to share their experience with the students and professors of the study program within ERASMUS+ project.

The document management of the study program is provided by RTU IEVF Institute of Business Engineering and Management and RTU International Cooperation and Foreign Students Department.

The scientific base of the study program in the period under analysis was formed based on four scientific research projects realized by the Department of Corporate Finance and Economics, scientific publications of the teaching staff of the study program, resources of the RTU scientific library with subscribed databases, as well as FEEM Subscribed Databases and Bloomberg Laboratory.

In 2013-2014 the ERASMUS Intensive Program "Conducting Interdisciplinary Research in a Cross-Cultural Environment" was implemented within which its participants gained research experience in collaboration with students and professors from six European universities.

During the period of 2013 - 2016, the project "Enhancing Latvian Citizens' Securitability through Development of the Financial Literacy" funded by the Latvian Council of Science was realized; that diversified and expanded the research topics of the students.

Research projects "The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy" and "Involvement of the Society in Social Innovation for Providing Sustainable Development of Latvia" were carried out within the framework of the National Research Program "Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community (EKOSOC-LV) in the period of 2014-2018.

To conduct these research projects together with the teaching staff and researchers also students of the study program and foreign researchers (for example, Gintare Rumbinaite, Lithuania; Chandima Bandara Hetath Mudiyansele, Sri Lanka; Nicolas Guillermo Monge Iriarte, Chili) were involved in collecting data, analyzing them, interpreting the results, writing scientific articles and a monograph and presenting them at international scientific conferences.

Students of the study program had the opportunity to work with scientific publications available in RTU Scientific Library resources and subscribed databases: EBSCO, ScienceDirect, Scopus, Web of Science, Wiley, etc., as well as with business and finance statistics in FEEM subscribed databases (Amadeus, Firms.LV, Bloomberg). It is recommended that study program students use the digital tool Mendeley for literature search and management.

The methodological basis of the students' learning consists of: 1) electronic books, which are available in RTU scientific library and subscribed databases (EBSCO, ProQuest, Wiley, etc.); 2) study materials, lecture presentations, individual and group assignments, which are placed on the ORTUS website by the teaching staff who realize the study courses; 3) methodological materials developed by the teaching staff involved in the study program, for example:

Kozlovskis, K., Bistrova, J. *Investīciju finanšu instrumenti*. Rīga: RTU Izdevniecība, 2015. ISBN 978-9934-10-769-6.

Ciemleja, G., Lāce, N. *Finanšu lietpratības līmeņa novērtēšanas instrumenta izveide*. Rīga: RTU Izdevniecība, 2015. ISBN 978-9934-10-770-2.

Ciemleja, G., Lāce, N. *Personīgo finanšu pārvaldība*. Rīga: RTU Izdevniecība, 2016.- 81 lpp. – ISBN 978-9934-10-918-8

*Uzņēmēju finanšu lietpratība finansiālās stabilitātes pārvaldībā/ N. Koleda, N. Lāce, K. Oganisjana, proj. vad. N. Lāce. – Rīga : RTU izdevniecība, 2013.-107.lpp. ISBN 978-9934-10-527-2*

Ciemleja, G. *Finanšu pārskati* - Rīga: RTU Izdevniecība, 2019. - ISBN 9789934223433.

The material and technical basis of the study program consists of RTU FEEM (Kalnciema 6) classrooms, computer rooms and Bloomberg laboratory with twelve terminals. All FEEM classrooms are equipped with Multimedia.

The financial basis of the study program is formed of tuition fees from Latvian and international Master's students, financing of science and financial resources from the implemented research projects.

Thus, the study and science base of the study program "Business Finance", as well as the informative and methodological base, databases and literature available in the library meets the conditions of the implementation of a full-time and part-time (face-to-face) study program. However, it is also planned to implement this study program as part-time extramural studies which will enable to develop and attract more students from different countries of the world. This will require the development of new digital methodological materials and adaptation of the existing ones according to the study forms.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

During the period under analysis, the teaching staff of the study program underwent certain changes, which can be explained by two causes: 1) improvement of professional competences and career development (three docents became associate professors, one assistant became a docent); 2) termination of employment of three lecturers with RTU (retirement, integration of one study course content into another study course, changes in professional interests and priorities). The changes in the teaching staff of the study program during the reference period are summarized in the table:

Mācībspēku sastāva izmaiņu analīze / **Analysis of changes in teaching staff composition**

	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Profesors/professor	3	3	3	3	3	4

Viesprofesors/guest professor	1	1	1	1	1	1
Asoc. Prof./ associate prof.	1	1	1	1	3	3
Docents/docent	7	7	6	6	4	4
Asistenti/assistant	2	1	1	1	1	1
Vies docent/guest docent	1	1	1	1	-	-
	15	14	13	13	12	13

These changes did not affect negatively the quality of studies, as the study program was improved and study courses were restructured according to the Regulation No. 240 of the Cabinet of Ministers of the Republic of Latvia on the State Academic Education Standard, 13 May, 2014, and Resolution of RTU Senate on the RTU Unified Requirements for Study Programs (Minutes No 588), 23 March, 2015.

The quality of implementation of the study program “Business Finance” is ensured and improved as a systematic and systemic joint event, which is implemented for the professional and didactic improvement of the personnel at the Faculty of Engineering Economics and Management (Decision of RTU FEEM Council No22000-1.2/88 December 12, 2017 “Professional and Didactic Improvement of FEEM Staff” ).

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

Academic staff of the Master's study program “Business Finance” (Prof. N. Lāce, Prof. E. Gaile-Sarkane, Prof. I. Lapiņa, Prof. J. Ievinš, Prof. M. Platonova, Assoc. prof. K. Oganisjana, Assoc. Prof. G. Ciemleja, Assoc. Prof. K. Kozlovskis) complies with the conditions for the implementation of academic study programs specified in the Law on Higher Education Institutions. The relevant opinion of the Higher Education Council has been received.

Most of the teaching staff involved in the study program defended their PhD Theses under the supervision of professor Natalja Lace in the field of financial management. They continue their professional growth working in Latvian and international companies, projects and financial sector



companies as: a CFO; a Head of Financial Investment Research Department; a Chief Expert and a Head of Analytical Department of the State Revenue Service; a Leading Expert in a Commercial Bank; a Financial Model Analyst; and a Board Member of a National Project. One of the associate professors represents Latvia in the Committee of European Cooperation in Science & Technology (COST) as a Management Committee Member. All this experience ensures the linking of the implementation of the study program with practice.

The teaching staff of the study program develop their professional competences by participating in the ERASMUS + teaching and staff mobility program, giving lectures to European university students and teaching staff: Brno University of Technology (CZ), Polytechnic University of Valencia (Spain), Sapienza University of Rome (Italy),

Universidad de Leon (Spain), Northumbria University (UK), , Gdansk University (Poland), Artevelde University College (Belgium), etc.

During the reporting period, guest lecturers from Italy, Great Britain, the Czech Republic, Bulgaria, Croatia, Lithuania and Estonia shared their experience with the study program students and professors on topics specific to the study program: financial risk management, financial tools and investments, cost analysis, business financing, project application development and submission, etc.:

#### **2013/2014**

Professor Tatyana Põlajeva - Tallinn University of Technology;  
Assoc. prof. Iveta Simberova - Brno University of Technology.

#### **2014/2015**

Leonardo Piccinetti (Italy) - Head of Europe for Business Ltd and researcher at the Faculty of Economics at Rome3 University;  
Virginija Grybaite (Lithuania) - Vilnius Gedimina Technical University, Faculty of Business Management;  
Plamen Patev (Bulgaria) - Tsenov Academy of Economics;  
Kostalova Jana, Vlckova Vladimir (Czech Republic) - University of Pardubice;  
Alan Barel (United Kingdom) - University of Cambridge, Judge Business School;  
Manuela Tvaronaviciene (Lithuania) - Vilnius Gediminas Technical University, Faculty of Business Management.

#### **2015/2016**

Alena Kocmanova - Brno University of Technology; Faculty of Business Management;  
Manuela Tvaronaviciene, Irena Danilevičiene un Alina Kvetkauskiene (Lietuva) - Vilnius Gediminas Technical University, Faculty of Business Management.

#### **2016/2017**

Professor Zdravka Aljinovic - University of Split, Croatia;  
Professor Alena Kocmanova - Brno University of Technology, Czech Republic;  
Lecturer Andrius Balciunas - Mykolas Romeris University, Lithuania.

#### **2017/2018**

Professor Alena Kocmanova - Brno University of Technology, Czech Republic;  
Lecturers Danielius Kolesovas and Valdas Grigonis - Mykolas Romeris University, Lithuania.

#### **2018/2019**

Professor Alena Kocmanova, Iveta Shimberova - Brno University of Technology, Czech Republic;  
Researcher Nadezhda Kuchaidze - Mykolas Romeris University, Lithuania.

Dr. **Julija Bistrova**, CFA, is an Assistant Professor at Riga Technical University. She is also a head of financial research company Alphinox Quality AS, providing analysis to the Swiss asset management company Herens Quality Asset Management. Her research interests include earnings plausibility, stock market investments, corporate governance, and venture capital investments. In 2014 she received a doctoral degree in economic sciences from Riga Technical University.

**Guna CIEMLEJA Dr.oec.** Associate Professor, Faculty of Engineering Economics and Management, Riga Technical University. G. Ciemleja graduated from Riga Technical University, Faculty of Engineering Economics and Management (FEEM) in 2010, receiving the Doctor of Economics degree for promotion work «The Sustainable Performance of Small and Medium-Sized Enterprises. Problems and Solutions». Since 2007 holds scientific and academic positions at FEEM. Assoc. prof. G. Ciemleja research interests relate to the Personal financial literacy and the various business and financial aspects of companies. Research experience was gained through participation in scientific projects: «The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy» (VPP EKOSOC-LV); «Multipurpose nanocoating for the protection of the structural elements of aerospace technology» (EU project Nr.1DP/1.1.1.2/13/APIA/VIAA/027); «Enhancing Latvian Citizens' Securitability through Development of the Financial Literacy» (394/2012); «Apmācību metodikas izstrāde ilgtspējīgas attīstības īstenošanai mazos un vidējos uzņēmumos balstoties uz uzņēmuma dzīves ciklu» (RTU, IZM). G. Ciemleja is an expert in Economics and Business of Latvian Council of Science and expert at the Association of Latvian Printing Companies.

*Published works (2013 - 2019): scientific methodological material «Financial literacy and its evaluation» (2013), textbook «Personal financial management» (2013; 2016; 2018) un «Financial statements» (2019). As of 2007, there are a total of 63 scientific articles. 12 scientific papers are included in Web of Science data base, H-index –4. 13 – in Scopus data base. H-index –4.*

**Elīna Gaile-Sarkane**, Dr.oec., professor, leading researcher, since 2000 has been the author of 130 scientific publications related to topics such as the use of the electronic environment to increase business competitiveness, cross-sectoral methodologies for developing business skills, etc. She has participated in numerous conferences and written scientific articles published in the Web of Science and/or SCOPUS databases. She has also participated in various projects. She is a co-owner of two patents: a method for separating and wintering butter and similar substances, and a device for implementing the technique, as well as a holder for transporting unshaven paintings. She has experience in supervising Doctoral Theses; five Doctoral Theses have been defended under her supervision.

**Andrejs Čirjevskis** is a full professor in Strategic Management at RISEBA University of Applied Sciences (Riga, Latvia). He holds a Ph.D. in economics from Riga Technical University (Latvia). Prof. Čirjevskis's research interests include dynamic capabilities framework, business model innovation, value innovation, and real option valuation. He spoken numerous times at international scientific conferences and meetings. At present, he is a Chairman of Promotional Council and a Deputy of Chairman of Professors' council of RISEBA University of Applied Sciences. He holds PMP® certificate of PMI (USA) and provides "PMP prep exam" workshops in English at LATVIKON (R.E.P.) training center (Riga). Prior to the academic career, he led more than 10 years' executive functions within state-run and privately-run international companies and he consulted public and private sector organizations.

**Nadežda Koleda**, Dr.oec., assistant professor, researcher whose scientific and applied research relates to theoretical and practical solutions to the financial stability of an enterprise, financial

analysis and planning issues, entrepreneurial financial literacy. She has a total of 26 publications starting from 2007. Nadežda Koleda has participated in many conferences with reports and published scientific articles indexed in the Web of Science and/or SCOPUS. The practical activities and interests of Nadežda Koleda relate to the provision of core performance indicators for organizations (KPI assurance), quality management, change management, improvement and deployment of business processes and other issues. Nadežda has experience in managing financial projects, budgeting and auditing, training and coaching, as well as experience in customer and operational support while operating in a multicultural environment.

**Konstantins KOZLOVSKIS Dr.oec.** associate professor. K. Kozlovskis graduated from the Faculty of Engineering Economics and Management of Riga Technical university and defended PhD in 2008 and took the doctor's degree. The doctoral thesis: "Financial investment management strategies for small and medium investors in globalization conditions". Since 2001 he has been working at the Faculty of Engineering Economics and Management. The pedagogical time record is 19 years. The pedagogical activity includes supervision of bachelor and master theses, reading of specialized courses and their study program development. Kozlovskis's main specialization is related to the interdisciplinary field including investment management, analysis of financial instruments, statistics, econometrics, and data science. In 2017, K. Kozlovskis was elected to the post of an associated professor. Up to 2023 he is also elected as an expert of the Latvian Council of Science in the field of economics and entrepreneurship. The results of Kozlovskis's scientific research are reflected in published scientific papers (total 33, 2013-2019: 10) and in tutorials and workbooks, as well (total 12, 2013-2019: 4). Starting from 2005 K. Kozlovskis has been participated in projects of different levels (financed by RTU: 1, by RTU and the Ministry of Education and Science: 2, by Latvian Council of Science: 1, by European Science Foundation: 2, by the State Research Program: 1). Scopus H-index = 4 (in total 14 papers), Web of Science index = 1 (in total 8 papers).

**Dr. Natalja Lace** is a professor at Riga Technical University (RTU). She graduated from RTU (former Riga Polytechnic Institute), Faculty of Engineering Economics in 1982 with the diploma of engineer-economist. The doctoral thesis (1990) was focused on alternative choice of engineering decision making. Her pedagogic activities encompass bachelor, master and doctoral programmes: lecturing, supervising and reviewing bachelor, master and PhD theses. Natalja Lace is the Head of the Department of Corporate Finance and Economics and the Director of Master program "Business Finance" at Riga Technical University Faculty of Engineering Economics and Management. She is a Member of the Editorial Board of several academic journals and an expert of the Latvian Council of Science. Professor Natalja Lace is an author, co-author and editor of more than 200 scientific papers and books. She is involved in executing of research projects sponsored by the Latvian Government and Scientific Council of Republic of Latvia. Her research interests are focused on critical success factors of small and medium sized enterprises and innovation as well as financial aspects of business.

**Talis Laizans** is docent and researcher at Riga Technical University. Since 2015 he is participating as researcher at Innovation Economic Research Centre which research main area relates to entrepreneurship and innovation. He holds Master's Degree in Economics (Latvia University) and Master's Degree in Civil Engineering (Riga Technical University). T. Laizans was involved in support activities for international research projects. He was senior expert for Horizon 2020 SC6 "Europe in a changing world – inclusive, innovative and reflective Societies" and Latvia's representative at JIT "Bio-Based Industries" (2013 – 2018). He has experience with research project development and management, particularly to bio-economics related projects. He was Board Member at European Industrial Hemp Association and participates as expert for COPA-COGECA (Brussels) working parties "Research and Innovation" and "Natural Fibres" (2010 – 2017). His teaching and research at Riga Technical University is addressing entrepreneurship and finance. He has several publications in the

area of finance with special focus on venture capital and SME's development. Since 2018 he started to research aspects of social innovation and social entrepreneurship.

**Inga Lapina**, Dr.oec., professor, with over 20 years of experience in higher education, research and project management. She ensures research components in her work with students through participation in scientific conferences and development of publications on topics, such as the impact of cultural factors on organizational development, management of intellectual capital, managerial expertise in the management of intercultural teams, human resources management models, knowledge management and corporate social responsibility aspects, etc. Students learn the realities of the sector needed for a real business by using a variety of creative approaches and innovative thinking to develop the entrepreneurial capacity.

**Karine Oganisjana**, PhD in pedagogy, assoc. prof. and senior researcher, Riga Technical University (RTU), Faculty of Engineering Economics and Management, academic and scientific work experience at RTU since 2012. Dr. K. Oganisjana has a degree in Physics, English, Pedagogy of Secondary and Higher Education (Doctoral Thesis "Promoting Student Entrepreneurship in the Study Process"). Therefore, she has multiple interdisciplinary professional interests and research experience gained as a leading researcher of an ESF project and a project within the National Research program 'EKOSOC-LV', Latvia. She has also been a member of ASEM (Asia Europe Lifelong Learning Research HUB) since 2011 and of COST (European Cooperation in Science and Technology) Steering Committee since 2019. Dr. K. Oganisjana was also an invited researcher in a project of the Ministry of Education of Malaysia (2012-2014). She is an expert in economics and entrepreneurship, as well as in educational sciences of the Latvian Council of Science; she has over 60 scientific publications in management, economics, education, research and related fields, including two textbooks, four monographs, four collections of problems in physics. Since 2011 all over Latvia she has actively shared her experience with pedagogues for promoting their professional competences in creating interdisciplinary teaching and learning environment and working in it for enhancing their students' motivation to learn, critical thinking, creativity, metacognitive power, problem solving skills, entrepreneurial and other competences topical for the 21st century. In 2019 and 2020 she is realizing a project of the National Centre for Education of the Republic of Latvia (VISC in Latvian) within which she teaches about 700 pedagogues in 30 schools of Latvia sharing her expertise in linking studies to real life situations via interdisciplinarity and promoting students' competences.

**Marina Platonova**, Dr.philol., professor at RTU Faculty of E-Learning Technologies and Humanities since 2017. Her research relates to terminology management. She has participated in scientific conferences and written publications on topics such as the recognition and interpretation of references in technical texts, metonymy in different forms of communication, rhetorical strategies in the context of professional communication, etc.

**Angelina ROŠA Mg.** Researcher. A. Roša graduated from the University of Latvia (2005), and obtained a master's degree in philology. Currently she is a 4<sup>th</sup> year doctoral student in the *Doctoral study programme* „Management Science and Economics”, Riga Technical University (hereinafter RTU), she also holds a position of researcher at the RTU Faculty of Engineering Economics and Management (hereinafter - IEVF). A. Roša's scientific interests relate to the impact of coaching on the effectiveness of the company's performance. A. Roša participated in the scientific projects: "The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialization Strategy" (EKOSOC-LV). ( 5.2.2); "Reinforcing the safety capacity of Latvian citizens by increasing the level of financial literacy (394/2012) (LZP), as well as at present, she is participating in the European Social Fund project No 8.2.2.0/18/A/017 "Riga Technical University strengthening academic staff in areas of strategic specialization", PVS ID 3826, C3826.

Scientific publications (2013-2019): 14 scientific articles in the international scientific journals; 7 scientific articles are included in the Scopus database; 4 - in the Web of Science database.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The professors of the study program implemented four research projects during the reporting period (see Section 3.1), as well as carried out research in cooperation with researchers of other universities, which resulted in writing scientific papers, monographs and methodological materials which are used in the study process.

For example,

The results of the National Research Program “Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community (EKOSOC-LV)” are used in the study course “IEU524 Modern Research Methods”:

Oganisjana, K., Grīnberga-Zālīte, G., Surikova, S., Kozlovskis, K. et al. (2019). Sociālā inovācija: izaicinājumi un risinājumi Latvijā / Social Innovation: Challenges and Solutions in Latvia. Zin. red. Karine Oganisjana. Rīga: RTU Izdevniecība.

To conduct research projects together with the teaching staff and researchers also Master's students of the study program were involved in collecting data, analyzing them, interpreting the results, writing scientific articles and a monograph and presenting them at international scientific conferences. “Session's Best Paper Award” has been obtained from the “21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017” for the research paper

“Barriers to Social Innovation and Ways of Overcoming Them in Latvia”, Orlando, Florida, USA, 08-11.07.2017. Students are among the authors of the monograph “Social Innovation: Challenges and Solutions in Latvia”.

The study materials developed within the framework of the project “Enhancing Latvian Citizens’ Securability through Development of the Financial Literacy” financed by the Latvian Council of Science are used in the study courses:

“IUF737 Portfolio management”:

Kozlovskis, K., Bistrova, J. Investīciju finanšu instrumenti. Rīga: RTU Izdevniecība, 2015. ISBN 978-9934-10-769-6.

IEU515 Financial analysis and planning”:

Uzņēmēju finanšu lietpratība finansiālās stabilitātes pārvaldībā/ N. Koleda, N. Lāce, K. Oganisjana, proj. vad. N. Lāce. – Rīga : RTU izdevniecība, 2013.-107.lpp. ISBN 978-9934-10-527-2

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The cooperation among the study program lecturers takes place in four directions:

**1)** the teaching staff carry out various scientific research in mixed teams, which can be judged about considering the authors of the published works. For example, Oganisjana, K. and Kozlovskis, K.; Oganisjana, K and Laizans, T.;

Kozlovskis, K. and Bistrova, J.;

Lace, N. and Ciemleja, G.;

Koleda, N. and Oganisjana, K.:

Ciemleja, G., Lace, N. and Oganisjana, K.; Bistrova, J. and Lace, N. etc.

**2)** the teaching staff together develop methodological materials. For example, Ciemleja, G., Lace, N. and Oganisjana, K.; Kozlovskis, K. and Bistrova, J.;

Koleda, N., Lace, N. and Oganisjana, K.; Lace, N. and Oganisjana, K.;

**3)** the teaching staff share their professional experience and expertise with the colleagues of the study program in specially organized methodological seminars and workshops. For example, on 8 February, 2018 Ludmila Kasperovica gave a lecture “Using PIVOT Table and ICT tools in the classroom”; on 14 December, 2017 Lolita Tise told the colleagues about the new norms for employee tax reform; Julija Bistrova regularly shares her experience on how Bloomberg data base is to be used, etc.

**4)** the lecturers carry out interdisciplinary cooperation in the form of interdisciplinary research and development of teaching materials integrating their expertise from different fields. For example, the project “Involvement of the Society in Social Innovation for Providing Sustainable Development of Latvia” of the National Research Program EKOSOC-LV conducted an interdisciplinary study

integrating research traditions and knowledge from the fields of economy, management and education (see monograph *Social Innovation: Challenges and Solutions in Latvia*, 2019). On the other hand, for creating the scientific methodological material “Financial literacy of entrepreneurs in managing financial stability” (“Uzņēmēju finanšu lietpratība finansiālās stabilitātes pārvaldībā”) its authors integrated their expertise and knowledge from the fields of Finance and Pedagogy (Koleda, N., Lace, N., Oganisjana).

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Annex 5.pdf	5.Pielikums.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Annex 6.pdf	6.pielikums.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Annex 8.pdf	8.pielikums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Annex 9.pdf	9.pielikums.pdf
Descriptions of the study courses/ modules	Studiju kursi ENG.zip	Studiju kursi LAT.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-IMF0.pdf	Diploms-IMF0 .pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement between LU and RTU 2019.pdf	Vienošānās_LU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	AGREEMENT_2019_EN.pdf	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Uzņēmējdarbības finansēs_IMF0.pdf	Uzņēmējdarbības finansēs_IMF0.pdf



# Management Science and Economics

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Management Science and Economics</i>
Education classification code	<i>51345</i>
Type of the study programme	<i>Doctoral study programme</i>
Name of the study programme director	<i>Elīna</i>
Surname of the study programme director	<i>Gaile-Sarkane</i>
E-mail of the study programme director	<i>elina.gaile-sarkane@rtu.lv</i>
Title of the study programme director	<i>Dr.oec.</i>
Phone of the study programme director	<i>67089010</i>
Goal of the study programme	<p><i>Aim of the study programme</i></p> <p><i>To prepare highly qualified specialists of international level (doctors of sciences), in sub-fields of Management Science and Economics providing theoretical and practical knowledge, which are necessary to conduct independent research work and teaching work.</i></p>
Tasks of the study programme	<p><i>Objectives of the study programme</i></p> <p><i>To master the latest theoretical concepts, fundamental principles, research methodologies and research methods in the selected field of science. To carry out a research on the selected topic using modern state-of-the-art methods of analysis and data processing.</i></p> <p><i>To develop analytical, creative and critical thinking, abilities to address problems in an innovative way. To be able to present research results at international scientific conferences and seminars, to be able to prepare and publish scientific articles on research results.</i></p> <p><i>To develop leadership and change management abilities, ability to work in a team and cooperate with professionals from different areas.</i></p> <p><i>To develop pedagogical skills by independently developing study courses and reading academic lectures, supervising bachelor's, master's papers, diploma projects, placement.</i></p>

Results of the study programme	<p><i>Learning outcomes to be achieved</i></p> <ul style="list-style-type: none"> <li>- <i>a completed doctoral thesis has been independently drafted, which has significant theoretical relevance and practical use prospects and contains original research results, and provides new insights into the relevant field or sub-field of science;</i></li> <li>- <i>competences relevant to the level of international achievements of the relevant field of science, enabling to start independent professional, scientific or academic activities.</i></li> </ul> <p><i>Competences:</i></p> <p><i>Capable of resolving important research or innovation tasks in the fields of social sciences and interdisciplinary fields through independent, critical analysis, synthesis and evaluation;</i></p> <p><i>Capable of independently proposing an idea for research, planning, structuring and managing large-scale scientific projects in business and economics, including international projects;</i></p> <p><i>Capable of demonstrating that they know and understand latest social science theories and scientific insights, can use state-of-the-art research methods and methodologies relevant to social sciences;</i></p> <p><i>Capable of resolving important research or innovation tasks, developing new research methods and methodologies through independent, critical analysis, synthesis and evaluation;</i></p> <p><i>Capable of independently analysing the obtained results and drawing respective conclusions;</i></p> <p><i>Capable of independently planning a research, managing research or development tasks in organisations requiring extensive research knowledge and skills;</i></p> <p><i>Capable of analytical and critical evaluation of the material being studied, integrating theoretical knowledge into the research process, exposing problems, generating and developing new ideas;</i></p> <p><i>Capable of increasing own scientific qualification independently, carrying out scientific projects, gaining achievements that correspond to international criteria in economics and business;</i></p> <p><i>Capable of communicating independently in writing, demonstrating understanding of existing knowledge and its use in practice, including by preparing and publishing internationally quoted scientific articles and publications.</i></p>
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Final examination upon the completion of the study programme	<p><i>A doctoral thesis (dissertation) is defended upon completion of the study programme.</i></p> <p><i>A doctoral degree is awarded for an independently drafted doctoral thesis containing scientifically original, verified results and providing new insights into the specific sub-field of science. The conformity of the thesis is assessed by the State Scientific Qualification Commission, experts of the Latvian Council of Science and the Doctoral Council of the respective field of science, taking into account the following criteria: whether the research is a completed study with sufficient scientific novelty, appropriate content and volume, or whether state-of-the-art methods of analysis and data processing have been applied in the thesis or whether there are publications in reviewed international scientific editions, whether the results of scientific research have been discussed at international scientific conferences (workshops).</i></p>
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## Study programme forms

### Full time studies - 4 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	4
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	192
Admission requirements (in English)	<i>Master degree of social science, or comparable degrees; Master degree in management, administration and economics or comparable education; Master degree in natural sciences, engineering sciences, industrial engineering and construction or comparable education and at least 2 years of managerial experience</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Doctor of Science (e) (Ph.D.) in Economics and Business; or Doctor of Science (e) (Ph.D.) in Political Science"; or Doctor of Science (e) (Ph.D.) in Social and Economic Geography; or Doctor of Science (e) (Ph.D.) in Interdisciplinary Social Sciences; or Doctor of Science (e) (Ph.D.) in Military Science</i>
Qualification to be obtained (in english)	

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 5 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	5
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	192

Admission requirements (in English)	<i>Master Degree of Social Science or Comparable Education or Master Degree in Business Administration and Economics or Comparable Education; Master Degree in Natural Sciences, Engineering Sciences, Industrial Engineering and Construction or Comparable Education, At least 2 years of Managerial Experience</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Doctor of Science (e) (Ph.D.) in Economics and Business; or Doctor of Science (e) (Ph.D.) in Political Science"; or Doctor of Science (e) (Ph.D.) in Social and Economic Geography; or Doctor of Science (e) (Ph.D.) in Interdisciplinary Social Sciences; or Doctor of Science (e) (Ph.D.) in Military Science</i>
Qualification to be obtained (in english)	

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 4 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	4
Duration in month	0
Language	<i>english</i>
Amount (CP)	192
Admission requirements (in English)	<i>Master degree of social science, or comparable degrees; Master degree in management, administration and economics or comparable education; Master degree in natural sciences, engineering sciences, industrial engineering and construction or comparable education and at least 2 years of managerial experience; English proficiency level check.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Doctor of Science (e) (Ph.D.) in Economics and Business; or Doctor of Science (e) (Ph.D.) in Political Science"; or Doctor of Science (e) (Ph.D.) in Social and Economic Geography; or Doctor of Science (e) (Ph.D.) in Interdisciplinary Social Sciences; or Doctor of Science (e) (Ph.D.) in Military Science</i>
Qualification to be obtained (in english)	

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 5 years - english

Study type and form	<i>Part time extramural studies</i>
Duration in full years	5
Duration in month	0
Language	<i>english</i>
Amount (CP)	192
Admission requirements (in English)	<i>Master Degree of Social Science or Comparable Education or Master Degree in Business Administration and Economics or Comparable Education; Master Degree in Natural Sciences, Engineering Sciences, Industrial Engineering and Construction or Comparable Education, At least 2 years of Managerial Experience English proficiency level check.</i>

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Doctor of Science (e) (Ph.D.) in Economics and Business; or Doctor of Science (e) (Ph.D.) in Political Science”; or Doctor of Science (e) (Ph.D.) in Social and Economic Geography; or Doctor of Science (e) (Ph.D.) in Interdisciplinary Social Sciences; or Doctor of Science (e) (Ph.D.) in Military Science</i>
Qualification to be obtained (in english)	

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

**1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

**Riga Technical University** according to the regulations of the Cabinet of Ministers Nr. 522 "Amendments to the Cabinet of Ministers Regulations no. 1001 "Procedures and Criteria for Awarding the Doctor's Scientific Degree"" and Cabinet Regulation No. 10 of 14 August 2018. 523 "Amendments to the Cabinet of Ministers Regulations No. 202 "Procedure for Issuing State-Recognized Higher Education Certification Documents"" **has requested the AIC (Academic Information Centre), LCS(Latvian Council of Science) and Ministry of Education and Science to supplement the study program "Management, Administration and Real Estate," Property Management "**(Accreditation Sheet No. 2019/6, issued 11.07.2019.), Appendix to the Accreditation Sheet No. 2019/06 of the Study Direction, the list of degrees awarded in the **doctoral program" Management Science and Economics "(51345) with the following degrees in Social Sciences:**

- "Doctor of Science (Ph.D.) in Economics and Business";
- "Doctor of Science (Ph.D.) in Political Science";
- "Doctor of Science (Ph.D.) in Social and Economic Geography";
- "Doctor of Science (Ph.D.) in Other Social Sciences, including Interdisciplinary Social Sciences and Military Science".

**1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

**Dynamics of the number of students by courses, years of studies and form (full-time, part-time)**

In the reporting period (from year of studies 2013/2014) the dynamics of the number of students have been stable. 8 to 15 doctoral students were enrolled in the first course in each year of studies. A drop in the number of enrolled students was observed in the year of studies 2018/2019, which is explained by the reduction in the number of study places funded from the state budget (see Figure "Dynamics of the number of enrolled students and breakdown into study courses by years of studies")

In the reporting period, students of the doctoral programme choose full-time studies and have not

been enrolled in part-time studies since 2013/2014 (see Annex 5, Table “Dynamics of the number of students by courses and years of studies and breakdown of the number of students by sources of funding”).

Starting from the year of studies 2015/2016, 7 (seven) international students (Europe (Lithuania, Turkey), Asia (Azerbaijan), Middle Asia (Uzbekistan), South Asia (Sri Lanka, Lebanon, India)) have been enrolled in the programme in English for full-time studies. The interest of international students in doctoral studies confirms international competitiveness and awareness, which, in turn, is an important economic contribution for the programme (see Annex 5, Table “Breakdown of the number of students by home countries”).

#### **a. The number of students enrolled in the first year of studies**

Doctoral study programme Management Science and Economics of the RTU FEEM:

- In academic year 2013/2014 **8 students** were enrolled in year 1, full-time department. No students were enrolled in the part-time department;
- In academic year 2014/2015 **8 students** were enrolled in year 1, full-time department. No students were enrolled in the part-time department;
- In academic year 2015/2016 **17 students** were enrolled in year 1, full-time department. **1 student** was enrolled in the part-time department;
- In academic year 2016/2017 **14 students** were enrolled in year 1, full-time department. No students were enrolled in the part-time department;
- In academic year 2017/2018 **14 students** were enrolled in year 1, full-time department. No students were enrolled in the part-time department;
- In academic year 2018/2019 **10 students** were enrolled in year 1, full-time department. No students were enrolled in the part-time department

#### **b. Number of graduates**

The number of students in the doctoral study programme “Management Science and Economics” of the RTU FEEM varies within 7 to 2, which is mainly related to time-consuming research.

Doctoral study programme Management Science and Economics of the RTU FEEM:

- In academic year **2013/2014 7** doctoral students graduated from the study programme and defended doctoral theses.
- Anželika Berķe-Berga *Development of Employee Share Ownership in Latvia*;
- Armands Auziņš *Evaluation Methodology of Land Use Efficiency in Land Management*;
- Tatjana Štaube *Issues of Spatial Economic Allocation of the Entrepreneurial Activities in Latvia*;
- Deniss Ščeuļovs *Use of Electronic Environment in Entrepreneurship Development*;
- Jana Eriņa *Development of Customer Centric Business Model in a Commercial Bank*;
- Jūlija Bistrova *Achieving Shareholder Value Sustainability on Central and Eastern European Equity Markets*;
- Sanda Geipele *Management System of Real Estate Market Development in Latvia*.
- In academic year **2014/2015 4** doctoral students graduated from the study programme and defended doctoral theses.
- Jurijs Grizāns *Competitiveness of the Business Environment in Latvian Urban Areas and Applicable Tools for its Improvement*;
- Gita Actiņa *Development of Management System of Energy Efficient Processes in Latvia*;
- Māra Pētersone *Integrated Approach of Customs Service Human Resource Management Strategy*;
- Nadežda Semjonova *Government Debt Policy Modeling*.

- In academic year **2015/2016 1** doctoral student graduated from the study programme and defended doctoral theses:
- Darja Stepčenko *Risk Management and Measurement System and Its Influence on Baltic Insurance Market.*
- In academic year **2016/2017 7** doctoral students defended their doctoral theses at the Doctoral Council RTU P-09 obtaining the scientific degree of Dr.oec:
- Artūrs Zeps, topic of the doctoral thesis *Strategic Solutions for Sustainable Development and International Excellence of Organisations;*
- Alise Vītola, topic of the doctoral thesis *An Evaluation of the Socioeconomic Impact of Institutions;*
- Māris Balodis, topic of the doctoral thesis *Optimisation Models for Securing Energy Supply Towards Sustainable Economic Development of Latvia;*
- Vladimirs Šatrevičs, topic of the doctoral thesis *Strategic Fit Assessment for Enhancing Manufacturing Company's Development;*
- Oksana Lentjušenkova, topic of the doctoral thesis *Intellectual Capital Management and Development in Companies in Latvia;*
- Kaspars Šteinbergs, topic of the doctoral thesis *Cluster Strategic Direction and Initiative Model to Facilitate the Development of the Audiovisual Sector in Latvia;*
- Justīna Hudenko, topic of the doctoral thesis *Elaboration and Design of Public-Use Railway Infrastructure Optimal Development Models.*
- In academic year **2017/2018 2** doctoral students defended their doctoral theses at the Doctoral Council RTU P-09 obtaining the scientific degree of Dr.oec:
- Iveta Ozoliņa-Ozola, topic of the doctoral thesis *Employee Turnover Challenges and Management Solutions at Companies;*
- Dmitrijs Skoruks, topic of the doctoral thesis *Monopolisation Process Assessment under Modern Economic Conditions.*
- In academic year **2018/2019 2** doctoral students defended their doctoral theses at the Doctoral Council RTU P-09 obtaining the scientific degree of Dr.oec:
- Anita Straujuma, topic of the doctoral thesis *Knowledge management application for enhancement of alumni long-term engagement in Higher Education and Research Institutions;*
- Linda Kaušakle, topic of the doctoral thesis *Assessment of Sustainable Development of Real Estate Market: Case of Latvia.*

### **Student drop-outs (by years and courses) indicating causes of drop-out**

Since 2013 the number of drop-outs decreases by 4% annually. Comparing 2013/2014. academic year with 2018/2019 The drop-out rate of students during the academic year 2008/2010 has decreased by 25% (see Appendix 5, Table "Student drop-out rates (by year and course) and its reasons").

Annual student drop-outs vary, and the most frequent cause of student drop-outs is bad academic performance. In a six-year period (since 2013/2014) 54 doctoral students have been expelled for different reasons – 35% (or 19 students) were expelled on their own volition, 24% (or 13 students) as a candidates for a scientific degree, 20% (or 11 students) for bad academic performance and 17% (or 9 students) because they have not resumed studies after an academic leave. Furthermore, 2% were expelled on their own volition due to illness and have not resumed studies after matriculation. ~ 26% of doctoral students (or 9 students) are expelled every year. The highest student drop-outs are observed in the third and fourth year of studies.

In promoting internationalisation, strengthening knowledge of English of students and improving the quality of the study process, since the year of studies 2018/2019 full-time Latvian flow doctoral



students have Compulsory (Part A) study courses “Modern Theories of Social Sciences” and “Research Methodology in Social Sciences” jointly with international students, who enrolled in full-time doctoral studies in the programme “Management Science and Economics”.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The doctoral study programme “Management Science and Economics” will be implemented in accordance with the Law on Institutions of Higher Education (adopted on 02.11.1995), the Law on Scientific Activity (adopted on 19.05.2005), the Education Law (adopted on 29.10.1998), CM Regulations “Procedure and Criteria for Awarding a Scientific Doctoral Degree” (adopted on 31.12.2005), the RTU Constitution, decisions of the RTU Senate and Regulations of RTU Doctoral Studies. The programme is implemented taking into account main research directions of RTU, as well as focuses on preparation of a new generation of teaching staff and scientists in accordance with Order No. 331 of the Cabinet of Ministers “Guidelines for the Development of Education for 2014-2020”. Documents of the European Qualifications Framework are respected, when improving the doctoral study programme.

Doctoral programs at RTU are designed in accordance with Article 1 of the Law on Higher Education Institutions, which determines the credit point is study accounting unit, which corresponds to the student's 40 academic hours of work (one study week), provided that full-time studies are 40 credit points per academic year and not less than 40 academic hours per week, as well as on the basis of Article 59, which stipulates that the acquisition of a scientific qualification in higher education institutions takes place in accordance with the Law on Scientific Activity. Thus, first of all, all doctoral students at RTU have been elected to the positions of scientific staff (research assistant or researcher). Secondly, all doctoral students actively participate in summer schools, doctoral seminars and conferences during the summer semester, as well as continue to actively carry out scientific research. Thirdly, each doctoral student, as a representative of the research staff, has 4 weeks of vocation per year, which makes up 48 working weeks or 48 credit points per year. According to Section 57 of the Law on Higher Education Institutions, the length of the doctoral program is determined to be four years and thus the total amount of the study program is 192 credit points.

The Doctoral study programme “Management Science and Economics” is proposed to persons with a Master’s degree in social sciences or equivalent degrees, a Master’s degree in management, administration and economics or equivalent education, a Master’s degree in life sciences, engineering, manufacturing and construction or equivalent education, if the person has at least two-year professional work experience in management of companies and institutions.

The title, aim, tasks, learning outcomes to be achieved and the professional qualification to be obtained of the study programme are closely interlinked. The content of the study programme complies with the requirements of academic education.

## **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of**

## Studies and Implementation Thereof)

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The study programme was created on 26 March 2001 (RTU Senate decision No.457). It was amended on 30 March 2009 (RTU Senate decision No.530), on 28 June 2010 (RTU Senate decision No.530) and on 26 June 2013 (RTU Senate decision No.571).

The study programme has been accredited until 31.12.2020; Accreditation sheet No. 2019/06

**Place of the implementation** of the study programme is **Riga**. The types of implementation are **full-time intramural and extramural studies** and **part-time intramural studies**. Part-time studies at RTU are organised in accordance with RTU Senate decisions and orders of the administration. According to RTU's standard planning, there are 2 semesters in each year of studies, the duration of each semester is 20 weeks – 16 weeks of studies and 4 weeks of the examination period. The programme is implemented in Latvian and English.

**Compliance of the programme with the needs of the labour market and trends in science is confirmed by high and constantly growing demand for persons with a doctoral degree in all areas of national economy.**

**The content of study courses is updated at least once a year in accordance with the development of the field of social sciences, recommendations of external experts, labour market requirements, recommendations of the advisory council of the study programme, etc.** Work groups are organised to update the content of any study course.

Thus, for example, in 2013 an **evaluation of scientific activities** was carried out at RTU, which revealed major shortcomings relating to doctoral studies – studies and publications are nationally oriented, have little impact on the field of science and no publication in top-level international editions, lack a publishing strategy.

Following the evaluation of scientific activities, in 2013 the FEEM Council **approved the Scientific Activity Strategy 2014-2020 of FEEM**. In line with the strategy, **content of the doctoral study programme Management Science and Economics was changed and modernised**.

**When enrolling doctoral students, supervisors of doctoral theses ensure that topics are relevant to the EU research interests**, as evidenced by participation of many doctoral students in the implementation of different types of international projects (e.g., Interreg, H2020, Erasmus+, BOMCA, EEA, etc.).

**The impact of research results of FEEM researchers on the development of the field of social sciences in Latvia has increased** significantly. For example, doctoral students I. Ozoliņa-Ozola, M. Dubickis, J. Gintare, A. Roša and others participated in the implementation of **NRP Ekosoc-LV** (2014-2018). The research results were published in many scientific articles and in the

scientific monograph *Social Innovation: Challenges and Solutions in Latvia* (RTU Publishing House – 2019), which **are included in the study courses**.

**Study courses** of the doctoral study programme **include the matters** related to the implementation of the National Research and Innovation Strategy for the transformation of the economy **Smart Specialisation Strategy (RIS3)** in research.

Close **cooperation with the industry, business organisations, associations** (active participation in more than 30 organisations) and other persons interested in the development of the field of social sciences, helping FEEM **to implement the most appropriate solutions in the study process and develop new research directions**, to improve the content of study courses. More than 20 new cooperation agreements are signed every year.

The faculty is a member of **Principles for Responsible Management Education (PRME)**, so PRME's **mission** – to inspire and support responsible management education and research worldwide – **is pursued in the study courses**. Every year, the content, aims of studies and competences to be developed that are included in the study content and their compliance with the PRIME principles are reviewed.

The scientific staff of FEEM actively participate in the various working groups, seminars and lectures organised by associations and governmental and non-governmental organisations. The latest findings are discussed in the working groups and are included in study subjects.

**Terminology is developed** in study courses. Every year, one or two new terms or definitions are submitted to the Terminology Committee of the Latvian Academy of Sciences. After their approval, the relevant terms are also integrated into study courses and scientific research.

Researchers of FEEM use a rather wide **range of communication channels** to interact with society as a whole, including official websites of RTU and FEEM, websites of institutes of FEEM, social networks (*Facebook, Twitter, ResearchGate, LinkedIn, Academia*), presentation in schools, open seminars, participating in European Researchers' Nights, Shadow Days, and via the local press and mass media

(magazines, newspapers, participation in radio programmes, television broadcasts, etc.). **Feedback from communications is considered when creating study courses and improving the content of studies**.

There are also **open access laboratories**, specialised laboratories for applied research and practical training in fields of customs, civil protection and real estate management – both for internal and external customers. **The results and developments of practical studies serve as a basis for improving the content of study courses, in particular, the content of specialised courses**.

The studies developed in the study programme **are based on the achievements and insights of the field of social sciences**. A scientific degree is awarded to graduates if the doctoral thesis has been defended, which is an original completed study of vital importance in the field of social sciences. **The impact of the results on the field of social sciences evidences that candidates for a doctoral degree have (see table or figure with data!):**

- at least one anonymously reviewed **scientific publication** in an edition, indexed in the **SCOPUS** database, with a defined Source Normalised Impact per Paper (SNIP) or indexed in the **Web of Science database** and having an Impact Factor (IP);
- anonymously reviewed **scientific publications in scientific journals or conference proceedings** indexed in the **SCOPUS or Web of Science database**;
- a **research** carried out in one of the scientific research **projects**;

- **reports** at international scientific **conferences or workshops**;
- **modern data analysis and processing methods** have been used in the research.

All the teaching staff and doctoral students involved in the implementation of the programme participate in the implementation of international or local scientific or research projects. For more information, see Section 4.4.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The content of the **study programme** and its implementation are based on the **applicable laws and regulations** and regulatory framework **of the Republic of Latvia, internal regulations of RTU**, the **principles of doctoral education recommended by EUA** (European University Association), the **EQUAL guidelines for doctoral studies** (*EQUAL guidelines for doctoral programmes in business and management, May 2016*), **following the strategic development objectives of RTU and FEEM and United Nations Sustainable Development Goals (SDGs)** in higher education.

The European University Association (EUA) has shaped a common understanding of the fundamental principles for doctoral education and obtaining a doctoral degree. The study programme applies four key principles:

- **The main component of doctoral education is improvement of knowledge by carrying out original research** necessary for the economy and contributing to the development of higher education and research;
- All **doctoral students are early stage researchers** who, in cooperation with experienced researchers, **make a significant contribution to creation of new knowledge**;
- **Supervision of doctoral students and regular evaluation of their achievements** (including the development of competences) play a key role in doctoral education and the development of early stage scientists;
- **The doctoral programme offers cross-disciplinary, cross-sectoral and geographically wide research, ensuring cooperation with a wide range of partners in Europe and around the world**, as well as student mobility.

One of the objectives of changes emphasised by EC-JRC (European Commission Joint Research Centre) is to introduce SDG in education, so that the study courses and research included in the study programme are based on the achievement of DGS goals.

**The study programme is designed to ensure a consecutive development of knowledge, skills and competences based on individual and group work, continuous communication between doctoral students and their supervisors.**

**First year of studies:** general academic subjects (Theories of Modern Social Sciences, Research Methodology in Social Sciences) implemented by all teaching staff involved in doctoral studies (the plan of topics is available ...), discussion seminars. As part of the academic subject Theory of Modern Social Sciences, students not only thoroughly learn theories of the industry, but also literature

analysis (a literature overview and

content analysis are prepared), with an in-depth discovery of individual research objects. At the end of the first year of studies, at least one publication is prepared and submitted for publication, a report is prepared and presented at an international conference. Scientific work takes place under the supervision of the supervisor.

**The second year of studies** is devoted to specialised academic subjects and doctoral seminars. Doctoral seminars take place on a regular basis, according to the planned schedule. Seminars cover topics of importance for industry research, doctoral students prepare and present research, discussions take place under the leadership of experienced supervisors, local and foreign experts. Scientific work takes place under the supervision of the supervisor. At the end of the second year of studies, at least two publications and reports at international conferences should be prepared and published. Doctoral thesis readiness at this stage is 30...40%.

**The third year of studies** is devoted to scientific work, research, publication of research results, participation in experience exchange and mobility projects. Doctoral student's individual work becomes more intensive, cooperation with the supervisor, and opportunities to meet with other doctoral students is provided on a regular basis to ensure experience and knowledge transfer. Work on scientific publications continues, the early stage researcher establishes international cooperation. Doctoral thesis readiness at this stage is 70%.

**During the fourth year of studies**, the final phase of the research preparation for submission to the Doctoral Council is ensured. Work on scientific publications continues, the early stage researcher establishes international cooperation. The fourth year of studies closes with the submission of the doctoral thesis for defence.

It should be noted that not all doctoral students can fit within the study plan. Most often, doctoral students choose to go on academic leave after the second or third year of studies, during which knowledge in the given field of research is improved during individual work.

**The information contained in study courses is logically interlinked, ensuring the development of knowledge and skills of students.** In the first year of studies, the general foundation for individual research in the selected field is laid, which is developed and strengthened in each subsequent year shaping early stage researchers, who are able to carry out independent, critical analysis, synthesis and evaluation, to solve important research or innovation tasks in social sciences and interdisciplinary fields. The interlinking of the results to be achieved, the aims set and other indicators can be found in the **Annex (didactic matrix)**.

**Students are involved in the study process at all stages of the studies, thereby ensuring the transfer of knowledge, experience and research results at different levels of studies** (according to the document "Guidelines for the Integration of Scientific Activities in the Study Process at FEEM" approved by the FEEM Council in 2017). The results of the research carried out during doctoral studies are integrated into Master's and Bachelor's study programmes in the respective fields of science, which ensures the integrity of knowledge transfer and research at all levels of studies. FEEM can be proud of the commercialisation (valorisation) of developments resulting from innovation and artistic creation, as demonstrated by the growing number of studies, publications and start-ups.

The doctoral study programme covers main research directions of the faculty. The main research directions at the faculty are implemented by five institutes:

- Institute of International Business and Customs (IIBC);
- Institute of Business Engineering and Management (IBEM);

- Institute of Civil Engineering and Real Estate Economics (ICEREE);
- Institute of Occupational Safety and Civil Defence (IOSCD);
- Institute of Production Quality (IPQ).

The vision of FEEM is to be recognised as an international centre of excellence in research and studies with local and global impact in the areas of engineering economics, management engineering, security, technology and innovation transfer based on our researchers, graduates, research and strategic partnership, and therefore the main research directions of FEEM are:

- Business development and innovation,
- Civil engineering, real estate, urban environment and territories,
- Organizational and national security,
- Quality management of processes, products and systems,
- Economic - mathematical and statistical modelling.

The doctoral study programme has been created in such a way so as to cover all the main research directions of FEEM.

FEEM has defined 5 **main strategic areas, on which long-term research goals of the faculty are based**, which may be implemented only with active involvement of students or graduates of the doctoral study programme “Management Science and Economics”:

- to increase the number of high quality and internationally recognised researchers.
- By 2020, FEEM must reach at least 66 elected researchers with the average age of 44 years, ensuring a stimulating environment for researchers after graduation from academic or doctoral studies, establishing and maintaining a research partnership, etc.;
- To ensure an internationally recognised research process, taking into account the growing dynamics in the number of publications, research projects, conferences, etc.;
- To ensure an effective research infrastructure by making investments in the development of high quality infrastructure and providing comprehensive resources for research;
- To ensure sustainable innovation, commercialisation and technology transfer by promoting creation of interdisciplinary knowledge, establishing and maintaining international research partnership;

To improve internal and external communication and cooperation.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study programme and the **study courses** included therein **are student-centred**, because different types of students, their **previous knowledge, skills and experience, the diversity of needs of doctoral students** are taken into account and respected, thus **applying individual learning pathways** to each of them. The implementation of the study programme includes **different** ways of implementing the **content of the study course**. Teaching staff works with students **in small groups or individually**, allowing them to **use different pedagogical and**

**andragogical teaching methods** that are relevant to the circumstances. The study process is organised in such a way as **to promote the independence of doctoral students**, at the same time ensuring **supervision and support** from the teaching staff as **scientific supervisors and mentors**. The study process organised in this way contributes to mutual respect and fosters growth of all parties involved in the study process. At the same time, objective consideration of initiatives and objections is ensured.

A **summed-up achievement** assessment **approach is used** in the **assessment of studies**, in line with the decisions of the RTU Senate. At the beginning of the study course, doctoral students **are familiarised with the criteria and methods of assessment** in the respective study subject. The assessment results are formed in such a way to give students an insight into the extent to which they have achieved the expected learning outcomes. **Students receive feedback**, which typically provides advice on the learning process and development of research skills. In all study subjects, **the assessment is carried out by at least three examiners** (experts in the field concerned, holding the doctoral degree), known as the examination board within the programme. At the beginning of each academic year, the composition of the board for the subject is reviewed and renewed. **When creating the board**, the latest developments in the field, **the achievements of the teaching staff during the relevant year of studies, the feedback of students** are taken into account. Members of the examination board know testing and examination methods and receive support in improvement of their skills in their area of competence (in line with the RTU Personnel Development Policy and the Professional and Didactic Improvement of Personnel approved by the FEEM Council). **The assessment is consistent**, uniformly applied to all students and is implemented according to the procedures approved by RTU, including the Scientific Commission of FEEM. Like at all levels, students of the doctoral study programme have been familiarised with the RTU's applicable procedures for examining appeals of students.

The study program is implemented in four variants, full-time, intramural form and part-time extramural form in Latvian, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 48 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 48 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time (or contact hours) and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and the

supervisor's advisory role. For example, in the study courses "Contemporary Social Science Theory" and "Problems of Business Management (Doctoral Workshop)" using the principles of metacognition, students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their achievements, as well as analyzing what they have learned in the course and in the learning process as a whole and discussing that with scientific supervisor as mentor.

The achievement of aims and results of study courses and programme within the framework of the programme is implemented by organising seminars and discussions for the teaching staff on learning outcomes and basic quality assurance principles on a regular basis.

**Thorough implementation of learning outcomes** is ensured in the study programme. The learning outcomes have been formulated at the level of the study programme and at the level of study courses. Students are informed about the learning outcomes to be achieved at the beginning of each study course, and they are also available in the ORTUS environment. As it was mentioned above, a link is ensured between the learning outcomes of the study programme and those of study courses. The interlinking of study courses and consistency in mastering of a study course are evaluated at least once a year and in addition – when proposals are received from students. The content and scope in credit points of study courses are created in accordance with learning outcomes of the study programme, while topics and their scope in hours are created in accordance with learning outcomes of the study course. The learning outcomes of all study courses are tested using appropriate evaluation methods. Students can dispute assessments of learning outcomes – this is provided for by the Regulations for Assessment of Learning Outcomes (Senate decision of 29.05.2017, protocol No.610).

Independent studies of students play an important role. Their description is included in the study course description as a mandatory component. The ability of students to learn independently is purposefully developed in all study courses and within the scope of scientific work. Students obtain skills in research work by working with literature and internet resources, conducting scientific research, preparing publications, reports for conferences on a regular basis, etc.

The influence of **mobility** programmes is entering daily life of doctoral student more and more often and opportunities of intercultural communication increase. The students studying at FEEM within the scope of mobility receive support at the level of the student self-government and at the level of management of the study programme and the faculty.

Doctoral students have access to extensive scientific and research infrastructure (see Paragraph 3 of the report for the study direction), at the same time, in order to ensure the availability of topical economic and financial information the faculty has a "Bloomberg Services" laboratory with a very extensive database. It includes all the global financial data, data about companies, securities, transactions, marketing events and different taxes. Students have access to extensive real-time databases, research and analysis tools. There are 12 special terminals at the laboratory, which are available to all RTU students and researchers.

Many resources are available to students also outside auditoriums: the RTU Scientific Library, scientific databases Web of Science, Scopus, Ebray, ProQuest and other online databases and reading rooms.

Many resources are contributed taking care of **extracurricular activities** and healthy lifestyle of RTU students. Different extracurricular activities are offered to RTU students – starting from different artistic bands and interest clubs such as "Vivere" chorus, "Bigbends" orchestra, "Vektors" popular dance group, etc. and ending with more than 20 sports, where each student has an opportunity to get on the team in sporting activities.



**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The study programme does not include placement; however, practical knowledge in research is strengthened by the active involvement of doctoral students in local and international projects.

All doctoral students are involved in research projects (see the statistics).

The most important projects include:

**National research project ECOSOC-LV:**

**National Research Program** 5.2. Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community EKOSOC-LV. (2014 – 2018), Ministry of Education and Science No. 02.2-09/13. [http://www.lza.lv/index.php?option=com\\_content&task=view&id=2489&Itemid=451](http://www.lza.lv/index.php?option=com_content&task=view&id=2489&Itemid=451)

**Projects:**

- 5.2.1. Explore the Competitiveness of Latvian Enterprises in Foreign Markets and Make Proposals for its Strengthening;
- 5.2.2. The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialisation Strategy;
- 5.2.7. Involvement of the Society in Social Innovation for Providing Sustainable Development of Latvia”.

**Project partners:** University of Latvia, Riga Stradiņš University, Ventspils University of Applied Sciences, SSE Riga.

**International project BOMCA:**

**Border Management Programme in Central Asia** – (BOMCA 9). Phase 9. Agreement No. DCI-ASIE/2015/358-348. Consortium agreement No. 03000-3.2.2/22 (15/06/2015–14/06/2018). Website: [www.bomca-eu.org](http://www.bomca-eu.org)

**Project partners:** State Border Guard of Latvia, Customs Department under the Ministry of Finance of the Republic of Lithuania, Food and Veterinary Service of the Ministry of Agriculture of Latvia, State Revenue Service of the Republic of Latvia and International Centre for Migration Policy Development. Associate partners: Immigration and Border Service of Portugal, Ministry of Interior of Hungary.

**Interreg projects:**

**Coast4us.** Central Baltic Programme 2014-2020, INTERREG CB627. (01.01.2018–30.09.2020). <http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en>

**Project partners:** County Administrative Board of Östergötland (Leading partner), Latvian Ministry of Environmental protection and Regional

Development (Latvia); Carnikava Municipality (Latvia); Saulkrasti Municipality (Latvia); Salacgriva Municipality (Latvia); Norrköping Municipality (Sweden); Valdemarsvik Municipality (Sweden); University of Linköping (Sweden); Coompanion Östergötland (Sweden); Aspöja Fastigheter AB (Sweden); Government of Åland (Sweden); Kökar Municipality (Sweden); Tallinn University of Technology (Estonia); Laane-Saare Municipality (Estonia); Pihla Municipality (Estonia); Põide Municipality (Estonia).

**MICROPOL - Smart Work Centres in Non-Metropolitan Areas.** European Territorial Cooperation Programme INTERREG IVC project. (01/01/2012 - 31/12/2014). Website: <http://micropol-interreg.eu>

**Project partners:** North Denmark Region (Denmark), Province of Drenthe (Netherlands), Intermunicipality Association from Chiva to Utiel (Spain), West Transdanubian Regional Development Agency Non-profit Limited Liability (Hungary), BSC, Business Support Centre Ltd, Kranj (Slovenia), Northumberland County Council (United Kingdom), Municipality of Teramo (Italy), Public Foundation for the Development of Industry (Hungary), NIVERLAN (France), Estonia Advice Centres (Estonia).

#### **EEA project:**

**EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia.** European Economic Area (EEA) and Norway Grants (01/06/2015 - 28/02/2017). Website: <http://transfer.rtu.lv>

**Project partners:** University of Latvia (Latvia), Nordic Institute for Studies in Innovation Research and Education (Norway), Stockholm School of Economics in Riga (Latvia).

Erasmus+ projects:

**Augmenting academic entrepreneurial training methodology, international students' entrepreneurship community, and fundamental entrepreneurial university network. (International Entrepreneurial Community Development through Academia - Good Practices).** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Strategic Partnerships for higher education KA203 Program project No. 2018-1-LV01-KA203-046974 (01/09/2018 - 31/08/2021). Website: <http://www.goodpractices.eu/>

**Project partners:** Anglia Ruskin University (United Kingdom), South-Eastern Finland University of Applied Sciences (Finland), Hogeschool Rotterdam (Netherlands)

**Improving Management Competences on Excellence Based Stress Avoidance and Working Towards Sustainable Organisational Development in Europe (IMPRESS).** Erasmus+ Key Action 2 (KA2): Cooperation for innovation and the exchange of good practices, Knowledge Alliances Program project No. 588315-EPP-1-2017-ES-EPPKA2-KA (01/11/2017-31/10/2020). Website: [www.excellence-in-stress-management.eu](http://www.excellence-in-stress-management.eu)

**Project partners:** NGO Euskal Herriko Elektronika Eta Informazio (GAIA) (Leading partner, Spain); University of Barcelona (Spain); Ludwig-Maximilians-Universität München (Germany); IBK Management Solutions, Wiesbaden (Germany); International Industrial Consult, Frankfurt am Main (Germany); Biedriba Eurofortis (BEFO) (Latvia); Mutua Mutua Colaboradora con la Seguridad Social Nº 2, Bilbao (Spain); Waterford Chamber of Commerce (Ireland); Riga East University Hospital (Latvia).

## **2.5. Analysis and assessment of the topics of the final theses of the students, their**

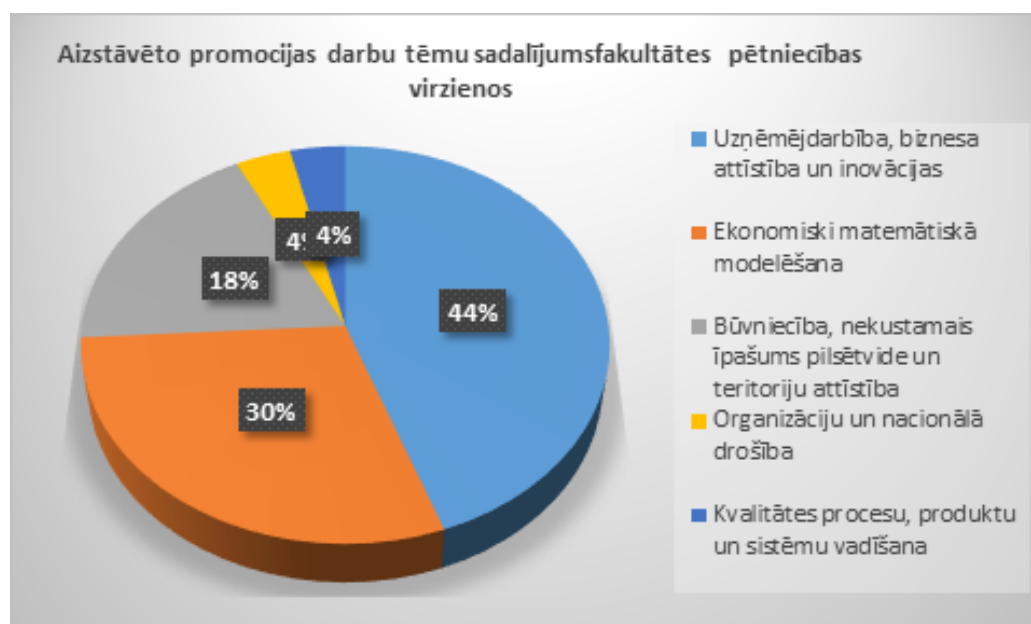
relevance in the respective field, including the labour market, and the evaluations of the final theses.

Topics of doctoral theses of students (field of research) are selected by submitting an application for admission to studies. At the same time, the Scientific Commission of FEEM and/or the director of the programme recommends a potential supervisor and consultants for the scientific paper. When starting doctoral studies, the supervisor of the doctoral thesis supported by the Department of Doctoral Studies is approved by an order of the RTU vice-rector for science for each doctoral student. The topic of the doctoral thesis is updated before defence of the doctoral thesis.

**Doctoral theses defended during the period starting from academic year 2013/2014 in 75% of cases focused on the Latvian market, while 25% had international focus.**

Graduates of the doctoral study programme carried out research in the fields of research defined by the faculty (see the figure):

- **Business** and innovation: 12 papers, or **44% of the total number**;
- **Civil engineering, real estate**, urban environment and territories: 5 papers, or **18%**;
- Organisational and national security: 1 paper, or 4% of the total number;
- Management of quality processes, products and systems: 1 paper or 4%;
- **Economic - mathematical and statistical modelling**: 8 papers, or **30% of the total number**.



When analysing of the topic of the papers by fields of science (RTU FEEM has been delegated the right to award the doctoral degree in management science (with sub-fields) and in the economic sector (with sub-fields)) **63% of the papers are prepared in the field of management science and 37% in economics**. Sometimes papers are interdisciplinary covering both economic and management science fields.

The conducted research and the defended doctoral theses have high added value for the development of science and national economy. **Feedback from companies and industry organisations** has been received about the doctoral theses (for their public defence).

Thus, for example, the research conducted in the doctoral thesis Elaboration and Design of Public-Use Railway Infrastructure Optimal Development Models by Justina Hudenko (supervisor prof. R.

Pocš) **is practically used in the planning and optimisation of the activities of Latvian Railway and related companies.** The research results of the doctoral thesis Optimisation Models for Securing Energy Supply Towards Sustainable Economic Development of Latvia by A. Balodis (supervisors assoc. prof. V. Skribans and prof. R. Počs) serve as the **basis for the planning of the activities of AS Latvenergo and AS Sadales tīkls.** The research Evaluation Methodology of Land Use Efficiency in Land Management by A. Auziņš (superv. Prof. I. Geipele) **is continued in post-doctoral research**, while the research Use of Electronic Environment in Entrepreneurship Development by D. Ščeuļovs (supervisor prof. E. Gaile-Sarkane) and the research Conformity Assessment System Management Problems and Solutions by R. Liepiņa (supervisor Prof. I. Lapiņa) **have served as the basis for research projects.**

Since 80-90% of graduates of the programme continue to work in higher education institutions or give visiting lectures, **the results** of the research conducted in the doctoral theses **are also included in the academic process**, which ensures transfer and further use of the knowledge.

**Several monographs have been written based on the results of the research papers.**

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The results of survey of students, employers, graduates are used to improve the quality of the study programme. The quality monitoring and assurance system introduced at RTU in 2008 provides that regular electronic surveys of students on the content of studies and the quality of work of teaching staff are organised using the ORTUS environment. At the same time, it should be indicated that due to a small number of students in the study programme and in each study course separately, the administration of the programme conducts individual surveys to ensure that the data are obtained.

Survey results about a specific programme are summarised and used for the improvement of the quality of the programme. Students and student self-government of FEEM actively participate in the process of surveying and analysis of results.

Questionnaires for students are created in such a way that the answers of students would help to evaluate the quality of the study course and work of teaching staff, as well as enable students to express their opinion and make proposals for improvement of lecturer's work and improvement of the specific syllabus.

Overall, the results of student surveys about work of academic staff have been clearly positive, because out of maximally possible 5.0 points the average evaluation was from 4.0 to 5.0, only some teachers had a lower score in individual questions. Therefore, each teacher has the opportunity to evaluate the results of own work and to take measures to improve the quality of studies.

**The results** of the surveys **are used** for continuous improvement of the **study content** and methodology. **For example, in 2018**, students recommended to supplement content of the study course **“Contemporary Social Science Theory” with topics related to human resources, human capital and personnel management.** Relevant questions were included in the study course (lecturer - Dr.oec. Iveta Ozoliņa-Ozola). **Students have suggested to attract foreign experts to provide certain study subjects.** The proposal has been taken into account and the

study course **“Problems of Business Management (doctoral seminar)”**, “2019/2020. in the academic year is provided by **visiting professor PhD Jean-Pierre Segers (Belgium)**. **Students' proposals have also been related to the integration of individual research results into the study course**. Within the framework of the State research program “Transformation of Economy, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society – A New Approach to Creation of a Sustainable Knowledge Society (**EKOSOC-LV**)” (**2014 - 2017**), three interdisciplinary projects “Explore the competitiveness of Latvian companies in foreign markets and make proposals for its strengthening”, “Development of innovation and entrepreneurship in Latvia supporting the smart specialization strategy” and “Involvement of society in social innovation processes for ensuring sustainable development of Latvia” were implemented. The results were integrated in almost all study programs of the study direction, most broadly in the doctoral study programme and especially **in study course “Research Methodology in Social Sciences”**.”

Surveys for graduates are conducted on a regular basis, at the end of each academic year. Surveys for graduates are organised in a centralised way in the ORTUS system, with a uniform RTU questionnaire standard and locally by the administration of the study programme.

In the questionnaires, graduates can express their opinions about the study process and its quality, evaluate administrative and academic staff of the study programme, post-graduate employment, the content of the study programme, etc.

Employment of graduates is one of the most important indicators, which demonstrates the need for specialists prepared in the study programme in the labour market. There is no data that any graduate of the programme would be unemployed. Graduates of the programme are in demand and will be in demand in the long term. Most graduates work in different state structures (for example, ministries, agencies, banks, etc.) in Latvia and abroad.

**If we summarise questionnaires of graduates, it can be concluded that graduates are satisfied and appreciate the theoretical knowledge and research skills acquired, the selected study programme in general. 100% of respondents note that excellent infrastructure and technical provisions are used to implement the programme, as well as show satisfaction with the literature suggested and used during the study process. In addition, they highly appreciate the possibility of using ORTUS e-studies environment and international scientific publication databases.**

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Any doctoral student has an opportunity to participate in mobility of students. **Up to 10% of doctoral students use such an opportunity every year.** In the years of studies 2013/2014, 2014/2015 and 2015/2016 outgoing mobility of doctoral students was higher, but it has reduced in the last 2-3 years. This is explained by the fact that in the last 3 years doctoral students have been actively involved in the implementation of different research projects, including international projects, which provide for business trips and work in foreign countries.

Doctoral students actively use the opportunities provided by outgoing mobility and individually planning experience exchange activities organised by cooperation partners – within Intensive

Programmes, on international weeks, in international doctoral schools, and other activities.

In the year of studies 2013/2014, 5 doctoral students participated in outgoing mobility measures – 4 teachers as visiting lecturers 5 times, including 2 in Lithuania, 2 in the Czech Republic and 1 in Finland, but 2 doctoral students went to 3 experience exchange trips to universities of the Czech Republic, Austria and Portugal. As a result of experience exchange trips, 2 publications were prepared with foreign co-authors, there was work on the preparation of project applications.

In the year of studies 2014/2015, 4 doctoral students used mobility opportunities – 2 went together to 4 teaching visits to Estonia, Lithuania and the Czech Republic, but 2 doctoral students visited the University of Agder in Norway.

In the year of studies 2015/2016, 2 doctoral students Māris Millers (teaching visit to the Netherlands and the United Kingdom) and Inese Vilcāne (experience exchange trip (Staff Training) in Estonia) ensured kick-off of important international cooperation projects. DCAI in Estonia started a research project in the matters of the work environment and ergonomics, but M. Millers started important cooperation with INHOLLAND University of Applied Sciences.

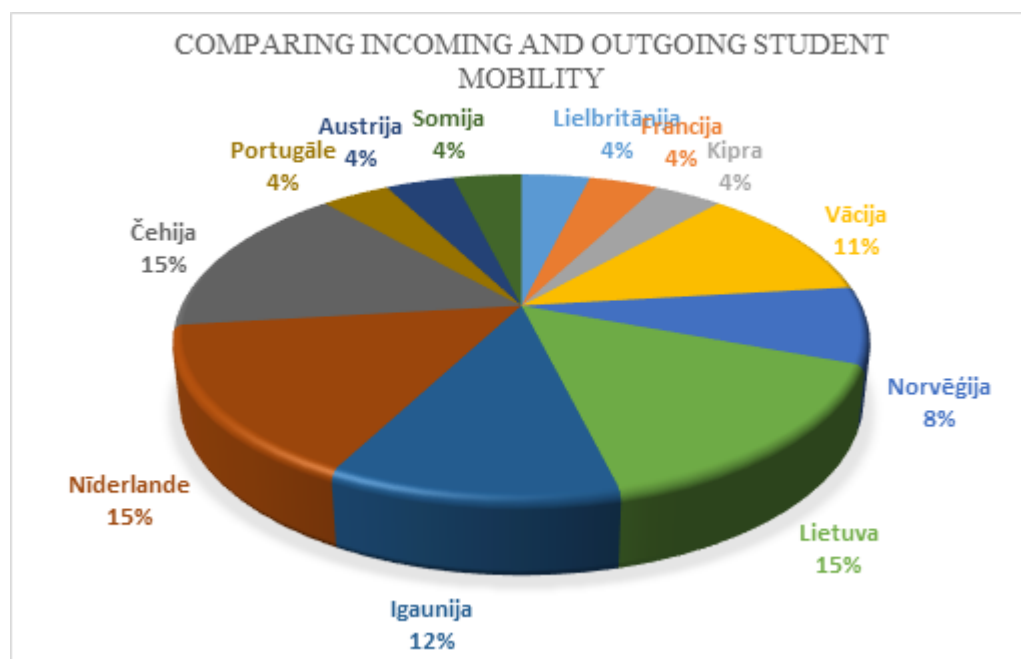
In the year of studies 2016/2017, there were 5 mobility events, 3 of which were experience exchange visits to Germany and Cyprus, 2 teaching visits to Holland and France.

Year of studies 2017/2018 – 2 teaching visits (Holland and Lithuania) and 2 experience exchange events in Germany.

In the year of studies 2018/2019 3 doctoral students were in exchange events (teaching visit in the Netherlands, exchange visit to Portugal and Lithuania) but 6 programme professors went in total to 6 exchange visits at Czech Republic, Portugal, Belgium, Germany and Lithuania).

In accordance with the analysis of outgoing mobility destinations, the most popular destinations of the study programme during the last 7 years of studies have been the Netherlands, the Czech Republic, Lithuania, Estonia and Norway.

The mobility resulted in the preparation and publication of 10 publications with foreign co-authors, 3 research projects were prepared and received funding.



In addition to outgoing mobility activities, FEEM doctoral students also participated in different international events. Thus, for instance, doctoral students V. Šatrevičs, I. Eriņa, J. Iljins, M.

Pētersone and members of teaching staff prof. N. Lāce, assoc. Prof. K. Oganisjana, doc. J. Titko and others participated in the Intensive Programme, International Week BRNO (Czech Republic). A study course (title) was passed within the scope of the Intensive Programme, which was recognised as a learning outcome within the programme.

Armands Auziņš – studies in Stockholm.

**If we evaluate objectively, doctoral students use mobility opportunities insufficiently. In order to ensure transfer of international experience and research practice and their integration in the research process, it is necessary to plan more active involvement of doctoral students in mobility.**

**When students use opportunities of incoming and outgoing mobility, the stuff learned during mobility is recognised within the scope of the content of the study programme.**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

Criteria 3.1 - 3.3 in Chapter 3 of Part II of the report for the study direction provide complete information about these matters. Information from Chapter 3 of Part II is highlighted and emphasised in this Paragraph only in addition.

RTU has decentralised budget, therefore each structural unit has a separate budget. Budget generally means a plan of revenues and expenditure for a specific period of time, work, event or function. RTU revenues and expenditure are managed in accordance with the principles approved by the Senate or determined by the vice-rector for finances in accordance with his authority. Revenues may be broken down into those allocated to a structural unit for the performance of certain works, for the performance of which it is responsible, e.g., provision of consultations, organisation of trainings, and those allocated to a structural unit as a result of calculations, based on the scope of planned work and/or the indicators shown in the previous periods (e.g., support to science). The head of each RTU structural unit is provided with remote access to operational financial information about the budget of the structural unit, including the planned scope of work and the funding to be allocated in the next periods for the implementation of study programmes and study courses. At the beginning of each financial or budget year the head of a structural unit plans the work of the structural unit, incl. matters of wages for academic staff subordinated to the specific head of the structural unit, and developing a procurement plan for the next year to ensure functioning and development of a study programme or a study course, etc.

The sources of funding of the doctoral study programme “Management Science and Economics” are

both state budget funds and the tuition fee paid by natural persons for studies. The number of budget places in the doctoral study programme is regulated by the annual agreement between RTU and the Ministry of Education and Science, therefore, the number of places allocated for the programme in different years varies.

Statistics of students broken down by types of financing is shown in Paragraph 1.2.

Funding of the study programme according to RTU data

<i>Academic year</i>	<i>Subsidy,, EUR</i>	<i>Tuition fee for local students, EUR</i>	<i>Total funding for the program, EUR</i>	<i>Cost per Student, EUR</i>
2013./2014.	98193,00	0,00	98193,00	5599,00
2014./2015.	102339,95	0,00	102339,95	5599,06
2015./2016.	111511,12	5850,00	117361,12	5599,06
2016./2017.	134506,46	3100,00	137606,46	5599,06
2017./2018.	102841,07	5380,00	108221,07	5851,99
2018./2019.	107150,69	7742,50	114893,19	6125,74

**The resources available for the implementation of the study programme are sufficient to ensure the achievement of the learning outcomes indicated in the study programme at present and in the long term.**

The **study base** for students of the doctoral study programme, as well as teaching staff and employees, is primarily **available in the electronic study environment ORTUS**. The system is a comprehensive single identity and login system. The portal provides an e-study environment, a career section, a virtual class and session plan system, a system for support for scientific activities, information for employees, a base of laws and regulations and a project management system. **Extensive informative resources** are available to students and teaching staff using ORTUS, **including library resources, which are constantly updated.**

**Each doctoral student has a workplace at the faculty and free access to scientific resources.**

The **scientific base consists of laboratories, databases, various software, and extensive scientific resources** that are available to RTU.

The Faculty is equipped with individual workplaces for all researchers, doctoral students and postdocs. There is world-class modern equipment and laboratories for different research purposes. In 2013 - 2018, significant investments in research infrastructure were made. **Total infrastructure expenditure exceeded 1 million Euros** from different sources of funding.



The main infrastructure objects available in FEEM are:

- **In total 12 computer, simulation and modelling laboratories:**
- for customs and tax officer training – **2** laboratories with the capacity of 15-20 persons each;
- for civil defence and fire protection – **2** laboratories with fire protection equipment with the capacity of 20 persons each (the stand of the automatic fire-fighting and notification system as well as the Metrel MA 2067 stand are unique and currently the only ones in Latvia);
- for real estate and urban planning research – **2** laboratories: one with 15 fixed workstations and another with 10 mobile workstations;
- for economic and business modelling – **3** laboratories, with the capacity of 35, 20 and 12 persons;
- for creative workshops and prototyping – The Lab with the capacity of 15-20 persons;
- Statistics, Process Improvement, Six Sigma, Quality Analysis Computer laboratory with capacity of 15 persons;
- for customs – laboratory with scanners, etc.
- **More than 15 different databanks and databases** with international and local data:
- Bloomberg Services database,
- Amadeus,
- ArcGIS software with a database,
- NamZinis, NamuBoss, Darbu Boss, etc.
- **The Museum of Customs and Taxes;**
- **More than 30 different softwares** (with single or multiple licenses):
- Estimating software “Construction Estimating System”,
- Vensim: Simulation Academic DSS, Professional, Powersim, etc.
- Environmental, Territorial, Infrastructure Development Modelling Complex, AutoCad; Eview,
- NamZinis, NamuBoss, Darbu Boss, etc.

In order to ensure proper work of the laboratories and equipment, there are different support services in FEEM and there are 4 persons with different skills and competences employed as technical staff.

RTU administers a portal of research equipment and services [UseScience](#) for research institutions, students, entrepreneurs and other interested parties, partner institutions and industrial enterprises in Latvia and abroad. The portal provides an opportunity to contact the person responsible for particular equipment and to agree on a service or use of the equipment.

RTU has cooperation agreements with other research institutions on use of research equipment; it is available for use also for commercial enterprises if the financing conditions allow it.

The RTU Research Department administers the Research Support Fund which provides support for research activities, maintenance and availability of research infrastructure and provides financial support for publications in Open Access journals and for publishing RTU scientific journals in Open Access.

The RTU IT Department administers the RTU Research Support System (ORTUS) which comprises information on RTU research staff, research activities, publications and research data and manages the infrastructure providing the implementation of the Open Access Policy of RTU. RTU researchers deposit all publications and research data in RTU publication and research data repositories and allow open access to them.

For the period 2019-2023 more attention should be paid to renewal of the hardware and software in FEEM.

In the RTU ORTUS environment, students can access international databases: Web of Science,

EBSCO, SCOPUS, SCIENCE DIRECT, SpringerLink full-text journals and books, several databases and other information resources. The profile structural unit (department) provides students with literature necessary for specialisation.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

**Study and scientific base resources for the needs of doctoral studies are shared in cooperation with Latvian and foreign universities.**

**Out of Latvian universities, the University of Latvia, the Rīga Stradiņš University, SSE Riga, the BA School of Business and Finance and other can be listed as the most important cooperation partners** in the implementation of the doctoral study programme.

Thus, for example:

**University of Latvia** – cooperation in training of doctoral students and implementation of post-doctoral studies, **co-participation of FEEM teaching staff in the work of Doctoral Councils** (prof. I. Geipele, prof. N. Lāce, prof. E. Gaile-Sarkane, prof. I. Lapiņa, etc.), participation of professors of the University of Latvia in the work of RTU Doctoral Council P-09 (prof. S. Bāliņa, prof. B. Sloka, prof. Ē. Šumilo, etc.), **mobility of doctoral and post-doctoral students** (particularly in the implementation of elective study subjects), **organisation of scientific conferences and seminars** (for example, the LU-RTU joint international scientific conference for students has been organised since the year of studies 2017/2018).

**Use of shared infrastructure of the Rīga Stradiņš University, post-doctoral research projects, cooperation in the implementation of elective study subjects and implementation of joint scientific projects.**

**Doctoral seminars are organised in cooperation with SSE Riga. FEEM doctoral students participate in the study courses implemented by SSE Riga: “Latest News in Business Research”** Part C study subject 4 CP (6 ECTS), which takes place as an open workshop **with participation of foreign scientists, researchers and young scientists**, “Lab for Young Scientists: for development of doctoral theses and international scientific papers” 4 CP (6 ECTS), etc.,

**RTU jointly with LU, RSU, SSE Riga implemented National Research Programme 5.2 EKOSOC-LV, projects 5.2.1 and 5.2.2. Innovation and business development in Latvia in accordance with the Smart Specialisation Strategy EKOSOC-LV, LR MoES registration No. 02.2-09/13.**

**Out of foreign universities, Kaunas University of Technology (Lithuania), Tallinn University of Technology (TalTech, Estonia), Brno University of Technology (Czech Republic), Hochschule Karlsruhe (HSKA) - University of Applied Sciences (Germany), Wroclaw University of Economics (Poland), Fachhochschule Münster University of Applied Sciences (Germany), KTH Royal Institute of Technology (Sweden), etc. can be mentioned as the most important cooperation partners** in the implementation of the doctoral study programme.

**All the cooperating universities** jointly **use scientific and informative resources**, ensure **exchange of knowledge and experience**, implement **summer schools, intensive study programmes**, traineeship of doctoral students and/or teaching staff, **implementation of projects, joint publications** and other activities. For details see Section 3.1 and the report for the study direction.

For example, Linda Kauškale had traineeship in the **Hochschule Karlsruhe - University of Applied Sciences** (supervisor Franks Riemenschneider), as a result of which she has conducted a research, defended a doctoral thesis and has prepared a number of publications (For example, Kauškale L. F. The Environmental and Economic Substantiation of Investments in Green Buildings. Baltic Journal of Real Estate Economics and Construction Management, 2016, 4, pp.126-144. ISSN 2255-9604. e-ISSN 2255-9671).

Dr. Karolina Daszyńska-Żygadło from the **Wrocław University of Science and Technology** ensures **student mobility, knowledge transfer, visiting lectures** at RTU.

**Armands Auziņš and doctoral students participate in the implementation of a post-doctoral project** “A values-led planning approach for sustainable land use and development. Activity 1.1.1.2 “Post-doctoral research aid” of the specific aid objective 1.1.1 “To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure” of the operational programme “Growth and employment” (No. 1.1.1.2/VIAA/1/16/161). (2017-2020), **incl. at KTH in Sweden.**

**Majority of doctoral students are involved in research projects in Latvia and internationally (tsee able).**

Nr. p.k. / No	Students / Student	VPP vai LZP granti	Uzņēmumu pasūtījumi LV	Interreg	Erasmus+	Citi projekti LV	Citi projekti EU
1.	Babiča Viktorija		x		x	x	
2.	Bazone Guna		x			x	
3.	Bušovska Inesa			x		x	
4.	Chandima Bandara Herath Mudiyansele	x					
5.	Citskovskis Uģis		x				x
6.	Degtjarjova Irina				x		
7.	Ence Enno		x				x
8.	Freimanis Kristaps						x
9.	Gaynulina Regina						x
10.	Jankovska Ilze						x
11.	Kairišs Andris						x
12.	Kasperoviča Ludmila	x					
13.	Kavosa Maija				x		

14.	Kočanovs Nikita		x				x
15.	Kreichbergs Toms				x	x	
16.	Lasmanis Reinis		x				x
17.	Locovs Jevgenijs		x				x
18.	Matisone Anita	x					
19.	Medne Aija				x		x
20.	Mishra Ankit						x
21.	Moroza Nadīna						x
22.	Pīlēna Arta					x	
23.	Plotka Kaspars					x	
24.	Pudzis Edgars			x			
25.	Šmitiņš Matīss		x				x
26.	Štrausa Evita		x				x
27.	Švaikovs Aleksandrs		x				
28.	Urbans Mihails			x			
29.	Uzulēns Jānis		x				
30.	Verdenhofs Atis		x				
31.	Zariņa Ilze		x			x	
32.	Zariņš Ģirts		x			x	x
33.	Zenčaka Andra		x				
34.	Zumente Ilze		x				
35.	Zvirgzdiņš Jānis			x	x		

**If we evaluate more objectively, joint use of resources might be more intensive, because, for example, the capacity of use of infrastructure, software, databases and so on can be doubled.**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

The total evaluation of academic staff is reflected in the information provided in criteria 3.5-3.6 in Chapter 3 of Part II of the report for the study direction and in CVs of teaching staff. This paragraph emphasises changes in the academic staff involved in the programme and their competence in teaching specific study courses.

Teaching staff from all structural units of FEEM is involved in the implementation of the doctoral study programme "Management Science and Economics".

#### **Teaching staff involved in the implementation of study courses:**

"Modern Theories of Social Sciences" - E. Gaile-Sarkane, I. Lapiņa, N. Lāce, I. Geipele, D. Ščaulovs, J. Mazais, A. Auziņš, T. Tambovceva, etc.; "Research Methodology in Social Sciences" - K. Oganisjana, N. Lāce, E. Gaile-Sarkane, I. Lapiņa; "Organisation and Management Strategy of International Economic Ties" - I. Judrupa, M. Šenfelde; "Business Management Modelling" - E. Gaile-Sarkane; "Business Logistics" - I. Pucens, I. Jurgelāne-Kaldava; Strategic Governance in Business - I. Geipele, T. Tambovceva; "Development of Economic Sustainability" - M. Šenfelde, J. Saulītis, L. Krilovs; "Marketing Theory and Practice" - I. Andersone; "Latest News in Modern Economics" - M. Šenfelde, I. Judrupa; "Quality Assurance and Improvement" - J. Mazais, I. Lapiņa; "Strategic Customs Management" - A.V. Krastiņš; "Strategic Financial Management" - N. Lāce; "Theory of Economics" - M. Šenfelde, A. Fedotovs "Sustainable Development of the Construction Sector and Real Estate Market" - I. Geipele, A. Auziņš; "Business Management Problems (doctoral seminar)" - E. Gaile-Sarkane, N. Lāce, I. Lapiņa, I. Geipele, J.P. Segers, etc.; "Modern Economic Problems (doctoral seminar)" - M. Šenfelde, I. Judrupa; "Scientific Paper" - E. Gaile-Sarkane, I. Lapiņa, N. Lāce, I. Geipele, D. Ščaulovs, J. Mazais, A. Auziņš, T. Tambovceva, M. Šenfelde, I. Judrupa, A.V. Krastiņš, M. Jurušs, etc.

**Measures have been taken in a targeted way within the faculty to make changes in teaching staff have a positive impact on the development and the quality of implementation of the study programme, as well as on compliance with the requirements specified in regulatory enactments.**

**The changes in teaching staff of the programme since academic year 2013/2014 have had positive dynamics. The total increase is +225%,** which is explained by well-considered implementation of the staff policy, continuous renewal of teaching staff (changes by academic years are shown in Table Changes in the composition of teaching staff of doctoral study programme "Management Science and Economics").

Changes in the composition of teaching staff of doctoral study programme "Management Science and Economics"

<b>Ceased work in the programme</b>	4
<b>Persons involved in the implementation of programme in different roles, in total, incl.:</b>	13
Involved as teaching staff (after obtaining a doctoral degree)	9
Involved as teaching staff (starting their employment relationship with RTU)	2
Involved as foreign teaching staff	2
Involved as a scientific supervisor or consultant	10
<b>Increase (%)</b>	<b>225</b>

**The most common reason why teaching staff cease work in the study programme is termination of their employment relationship with RTU (retirement).**

FEEM has developed its **strategy for the development of scientific personnel, based on the RTU personnel development strategy**. In 2013-2018 the personnel strategy was mainly focused on attraction and selection, retaining and motivation of human resources; perfection of the corporate culture and communication. These objectives were reached, but FEEM is planning to keep the good practice and continue these objectives for the next period as well. **In the 2019 - 2024** personnel strategy, the main focus was put on the following objectives:

- **Renewal of academic and research personnel**

To form a new generation of researchers and academic staff by active involvement of young researchers into research projects. This helps to ensure logical personnel development and a visible carrier pathway. Renewal of scientific personnel also can be reached by increasing the number of PhD students and awarded doctoral degrees. Researchers' average age in 2018 was 47, aiming to reach 44 by 2020.

- **Internationalization of research activities and attraction of foreign researchers**

Increased research mobility and joint research projects allow to take over the foreign good practice. The increasing number of joint scientific publications is one

of the positive indicators in reaching this goal. The aim is to attract 3 international researchers annually and by 2023 have at least 15 international researchers in FEEM.

- **Professional development of existing research and academic personnel**

According to the plan on professional development (approved in the Council of FEEM in 2017), for assuring life-long learning, facilitation of experience and knowledge transfer, different in-house and international professional development activities take place in FEEM. There are regular (monthly) activities for perfection of researchers' skills and competencies. Development is provided also by cooperation with the leading industry or research experts. Every researcher participates as minimum in 1 international project and once in 2 years takes part in professional development workshops/events.

- **Retaining and motivation of human resources, perfection of corporate culture**

Regular discussions with employees about setting individual goals, achieved results, competence development and professional growth planning take place in FEEM. Motivation of human resources is broad, including different benefits as well as by linking salary and performance appraisal. By increasing the number of international staff in FEEM, it is necessary to pay more attention to corporate culture issues, development of interdisciplinary, multicultural environment.

- **Development of research ecosystem, renewal of software and hardware**

For example, in September 2017, TheLAB (creativity workshop and prototyping space) was opened, in January 2019 the Bloomberg Services Lab was launched, in April 2019 the Lab for Customs Services was opened.

- **Cooperation with the industry**

One of the main goals is to provide cooperation with industry for ensuring research, technology transfer, cooperation with experts and impact on the development of the national economy. One of the personnel development objectives is to increase the number of industry experts working for FEEM (no less than 2 per every study program, e.i. ~40 persons), in order to tie together the research fields of FEEM with the real industry needs.

To ensure an increase of scientific impact and personnel development, the RTU administration signs an annual agreement with every RTU faculty, where particular development goals are set.

If we evaluate the situation objectively, it should be noted that the study programme **needs to increase the number of full-time foreign teaching staff in the next accreditation period.**

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The overall evaluation of the academic staff is reflected in the information provided in the Study Report Part II, Chapter 3, Criteria 3.5-3.6 and in the CV's of the teaching staff. **This highlight the relevance of the qualifications and competencies of the academic staff involved in the program to the teaching of specific study courses.**

**The qualifications of the teaching staff involved in the implementation of the study programme comply with the conditions of implementation of the study programme and the requirements of the regulatory acts,** because all teaching staff have a doctoral degree, and supervisors of doctoral theses have a doctoral degree and rights of LSC experts in the respective field of science. The teaching staff involved in the implementation of the programme actively pursues scientific research, publishes research results, participates in international scientific conferences, workshops, exhibitions, etc., has traineeship in companies, constantly improves their qualifications, **which ensures the achievement of goals and learning outcomes of the study programme and respective study courses.**

According to the document Guidelines for the Integration of Scientific Activities in the Study Process at FEEM approved by the FEEM Council in 2017, the results of the research are integrated into Master's and Bachelor's study programmes in the respective fields of science, which ensures the integrity of knowledge transfer and research at all levels of studies.

**Teaching staff have extensive experience in the planning, organisation and implementation of research projects,** which helps early stage researchers to develop the ability to independently put forward the idea of research, to plan, structure and manage large-scale scientific projects in business and economics, including international ones.

Since the study programme and the **study courses** included therein **are student-centred**, because different types of students, their **previous knowledge, skills and experience, the diversity of needs of doctoral students are taken into account** and respected, and a **summed up achievements assessment approach is used in the assessment of studies**, the assessment results are formed in such a way to give students an insight into the extent to which they have achieved the expected learning outcomes, then **feedback from the teaching staff and profound involvement in the development of each doctoral student ensures the**

**possibility of achieving learning outcomes.**

**Short biographies of members of teaching staff involved in the study process (in alphabetic order, only employed and having RTU FEEM as their main job) are provided, in order to characterise qualification of members of teaching staff and their contribution to the achievement of study results:**

**Aivars Vilnis Krastiņš, Dr.oec. Professor**, Director of International Business and Customs Institute, Head of the Department of Customs and Taxes, Riga Technical University (Latvia). Dr.Krastiņš has published more than 100 scientific articles, including 8 monographs. He has held several leading positions, including Director General of the Latvian SRS Customs Department, Advisor to the Prime Minister of the Republic of Latvia, Deputy Director for Academic Affairs and Research at the Latvian National Economy Professional Advancement Institute etc.

A.V.Krastiņš is one of founders of the World Customs Organization PICARD Program, one of the co-founders of INCU (International Network of Customs Universities) and a member of the WCO PICARD Advisory Group.

**Armands Auziņš, Dr.oec., associate professor**, developed several teaching methodological materials, over 20 international scientific articles on land management. A.Auziņš is a member of the European Academy of Land Use and Development. His scientific interests are related to land management, land exploitation and land surveying, as well as territory development planning. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. Presently, he is working in the project "A values-led planning approach for sustainable land use and development. Activity 1.1.1.2 "Post-doctoral research aid" of the specific aid objective 1.1.1 "To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure" of the operational programme "Growth and employment" (No. 1.1.1.2/VIAA/1/16/161). 2017-2020. The qualification of assoc. professor A.Auziņš corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study courses "Territorial and Detailed Planning, its Development Possibilities", "Cadastre and Foundations of Cadastral Evaluation".

**Deniss Ščeuļovs Dr.oec., assoc. professor** participates in qualification improvement activities related to academic and professional activity of a director of the programme on a regular basis. In 2017, a qualification improvement course "Methodology of Teaching Creation and Development of New Products" in the amount of 160 acad. hours was mastered (certificate PNI No. 003140). On 23 February 2018, assoc.prof. participated in the qualification improvement seminar for FEEM academic staff "Plagiarism, infringement of copyright and preventive measures" (2 contact hours, certificate PNI No.003486). On 2 March 2018, qualification improvement course "Is the study process at RTU qualitative?" (4 hours, certificate PNI No.003682). Deniss participated in the RTU FEEM academic conference "Integration of methodological and scientific teaching work in the study process", which took place on 27 April 2018. On 29 January 2019, RTU FEEM qualification improvement seminar "Formulation and procedure of development of topics of graduation papers" (1 contact hour, certificate No.28). On 26 February 2019, RTU FEEM qualification improvement seminar "New internship organisation procedure at RTU" (1.5 hours, Certificate Serial No.65). On 1 March 2019, RTU FEEM qualification improvement seminar "Corporate culture – how to reduce internal friction and multiply external possibilities" (2 hours, certificate No. 82). On 12 April 2019, he participated at the RTU FEEM academic conference "Transversal skills based education in schools and its effect on higher education" with a presentation and publication "Latest news and trends in e-commerce and e-marketing" (Certificate Serial No.156). On 8 May 2019, Deniss



participated in a training for AIC experts on quality evaluation guidelines, methodology and ensuring the e-platform accreditation and licencing process (7 hours, certificate No.373).

On 16-18 June 2019, he participated in NICE Network (The New Initiatives and Challenges in Europe (NICE) Network is an inter-university network of over 30 partner institutions from 21 countries in the Enlarged Europe, the Middle East, Australia and Asia) annual meeting "MEGA – Making Higher Education Go Ahead", participating in workshops "Teaching an international classroom: more than teaching in a foreign language-online learning and guidance course", "Blended Learning", Techniques of Lateral Thinking for Creation of New Solutions & Business Ideas", KYKYLAAKSO Learning Model & FIT test: two models for coaching (business) students, etc. On 26-27 August 2019, Deniss Ščeulovs participated in the workshop "Problem based learning in creative education" (20 acad.hours). Assoc.prof. Deniss Ščeulovs is also a professional member in the UIIN (University Industry Innovation Network) network. This is a dynamic network committed to drive innovation and business in cooperation with universities and industry representative. Devoted to knowledge exchange, finding solutions and establishing relations. Regular participation in qualification activities significantly helps to achieve learning outcomes, as well as promotes ensuring of high quality and improvement of the programme. Assoc.prof. Deniss Ščeulovs works in the area of research making publications in International scientific editions and participating in International Scientific Conferences on a regular basis. Research results are used in the taught study courses.

**Elīna Gaile - Sarkane, Dr.oec. professor.** Professor of the Faculty of Engineering Economics and Management (FEEM) of the Riga Technical University (RTU). Academic and scientific work experience at RTU more than 20 years.

In addition to a doctoral degree in economics Elīna Gaile-Sarkane has Bachelor degree in engineering (Bachelor degree in chemistry), which provides an excellent basis for academic and research work in innovation, management and business areas, therefore scientific research of prof. focuses on interdisciplinary areas covering management science, innovation management, technology transfer and different aspects of business.

Elīna Gaile-Sarkane has over 150 scientific publications in management, economics and related areas. More than 35 of them are published in internationally recognised editions or at conferences with indexing in international databases (for example, Thomson and Reuter, Scopus, EBSCO, etc.). Dr. Gaile-Sarkane is the author and/or co-author of 4 textbooks, 3 monographs, 1 patent. She is a supervisor of 8 (eight) doctoral students and four doctors of economics have defended their doctoral theses under her supervision. Prof. Elīna Gaile-Sarkane is a member of the RTU Doctoral Council P-09, an expert of the Latvian Scientific Council, an expert of the Czech Grant Agency, a member of many international organisations, a member of the joint council of professors of the RISEBA University of Applied Sciences, BA School of Business and Finance and Ventspils University of Applied Sciences in the area of management and economic sciences.

It is important to note the contribution of prof. E. Gaile-Sarkane to the development of science, which includes organisation of scientific conferences, participation in international scientific conferences, work of a reviewer in international scientific journals in the last 5 years. Elīna Gaile-Sarkane has prepared and cooperated as an expert, researcher or project leader in 7 international projects (over 20 projects in total since 2001) promoting interdisciplinary, international cooperation with an important contribution to the improvement of the Latvian education system.

**Ilze Judrupa, Dr.oec., associate professor,** author and co-author of several scientific publications. Co-author of the monograph "Evaluation of Competitiveness of Latvian Regions". Research components in work with students are ensured by active participation in qualification improvement seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific contract work. Author and co-author of

several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. The qualification of I.Judrupa corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course "Economics".

**Ineta Geipele, Dr.oec., RTU professor, Dipl.ing.,** has obtained and developed professional value and competence in different universities of Germany, Austria, Denmark and England, and is currently implementing them in study, methodological teaching work and scientific research work. Scientific interests of professor Ineta Geipele are related to the following areas – sustainable development problems in the real estate market, real estate management, construction, land use efficiency management, institutional economy and society management both at local and international level. Prof. Ineta Geipele is an expert in social sciences of the Latvian Scientific Council in the areas like economics and business; social and economic geography and other social sciences, including intersectoral fields of social sciences. Professor I. Geipele is an author and co-author of over 300 scientific publications, including 10 books, currently leads the ERASMUS + project Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2-Cooperation of innovation and the exchange of good practices; KA203 – Strategic Partnerships for higher education. No. 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. In parallel to her main job, she is an adviser in real estate matters to SIA "Ādažu namsaimnieks", operates in the Guild of Latvian Managers. The qualification of Prof. I.Geipele corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study courses "Real Estate Management", "Introduction to Real Estate Sector", "Introduction to Research in Real Estate Sector" and "Bachelor Paper".

**Inga Lapiņa, Dr.oec., professor.** I. Lapiņa has a scientific doctoral degree in economics with specialisation in management sciences and a Master's degree in education, as well as higher education in economics with specialisation in statistics. More than 23 years of experience in the field of higher education: management of the study process, research, quality assessment and management of international projects. Cooperated in the field of development of the education system as an expert, researcher and project leader in more than 20 projects and researches promoting interdisciplinary and intersectoral international cooperation and research with an important contribution to the improvement of the Latvian education system. From 2008, has obtained experience in over 20 expert workgroups in assessment of higher education institutions, study directions and study programmes. Presently, is working as a deputy chairwoman of the Study Quality Commission. Participated in higher education quality assessment activities organised by the Quality Agency for Higher Education of the Academic Information Centre, read lectures and provided consultations at seminars of the Latvian Student Union on the development and quality assurance in higher education. Has extensive international experience in quality assessment, including from participation in the Lithuanian Centre for Quality Assessment in Higher Education and Quality Accreditation (IQA) CEEMAN expert groups. I.Lapiņa is a representative of RTU in the American Society for Quality – ASQ, United States, as well as a representative of RTU FEEM in "Principles of Responsible Management Education - PRME", UN Initiative, United States. Actively acts as a representative in the Latvian Standard standardisation technical committee LVS/STK/10 "Quality Management and Quality Assurance" and LVS/STK/49 "Development and Harmonisation of Terminology".

**Ingūna Jurgelāne - Kaldava, Dr.oec., associate professor.** Professional experience: researcher and leader of several international projects. The research component in work with students is ensured by participation in international conferences, development of publications in

internationally recognised volumes of scientific articles, etc. Different research methods, incl. statistical ones, are used for reflection of research results in publications, their creation, which allow familiarising students with the results obtained in research. Co-author of textbook "Economic Statistics". Author and co-author of several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. The qualification of I.Jurgelāne - Kaldava corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course "Economic Statistics". Different teaching methods are used in the study course allowing students to master collection, summarising and analysis of statistical information in the field of the specific study programme using up-to-date information and data.

**Dovladbekova Inna, Dr.oec., Professor.** She has several years of professional experience in the implementation of study courses at the university, and regularly undertakes professional advancement activities, e.g. different courses and seminars. She is Expert of Latvian Council of Science. Leader and/or researcher in several research projects, including: State Research Program "Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community" (2014 – 2017), "Latvian Heritage and Future Challenges for the Country's and Society's Sustainability and Solutions in International Context" (INTERFRAME-LV) (2018 – 2021). Research component in work with students is ensured by participation in projects, scientific conferences and elaboration of scientific publications and monographs.

**Irina Voronova, Dr. oec., professor.** Professional experience: a member (1998) and a member of the board (2002) of the Latvian Actuarial Association, leads seminars on topics like "Methods of analysis of risks of national economy sectors and their practical use in the process of auditing work" at the State Audit Office and "Forensic approach to the analysis of accounting documents" in the Association of Administrators (2019), participation in professional conferences with reports and publications in professional journals. The work at the Latvian Actuarial Association provides knowledge about latest trends and methods in risk management. The research component in work with students is ensured by participation in scientific conferences and development of publications related to quantitative methods in risk assessment in insurance and non-financial companies

**Jana Eriņa, Dr.oec., assoc.prof.** Professional experience: 9 years of academic work experience in a higher education institution. Scientific activity and research has been conducted for more than 9 years specialising in the field of financial services and calculations of costs of vocational and higher education certified by participation in scientific projects and research programmes, participation in international scientific conferences and publications. Expert of the Latvian Scientific Council, Acting Head of the Department of Innovation and Business Management

**Ieviņš Jānis, Dr.oec., professor.** Long-term academic, scientific and administrative work experience at the university. Leadership or participation in several international scientific projects. Active participation in performance of contract work. In addition, supplements knowledge about latest trends in the sector and science at different local and international courses (Nord +, Sweden), seminars, professional and scientific conferences. In the study process, students develop and improve skills in conducting research and analysing results in different group work, research projects and case studies, thus ensuring the achievement of learning outcomes.

**Jānis Mazais, Dr.sc.ing., professor.** In parallel to academic, scientific and organisational activity, J. Mazais is actively involved in Latvian and global organisations promoting introduction and development of quality standards, is the chairman of the Accreditation Commission of the Latvian Accreditation Bureau, a deputy chairman of STK LVS/STK/10 "Quality Management and Quality

Assurance”, a representative of RTU in the Latvian Society for Quality, a member of the American Society for Quality (ASQ) (since 1992). Has developed courses of lectures for Bachelor and Master’s study programmes “Comprehensive Quality Management” (in Latvian) and courses “Quality and Environmental Management” and “Quality Technologies and Quality Management” (in English) in other RTU study programmes in parallel developing international reputation and internationalisation of RTU. Participates in several projects on European and global scale, for example, one of the most important ones was participation in ASQ ISO-TC 176 Study Group on Education in 2006 – 2010, within the framework of which the New Work Item Proposal – Justification Study and ANSI Z1.11 document “The use of the Quality Standard ISO 9001 in Education Organisations” were developed. The identification of the use of the Quality Standard ISO 9001 in education institutions has been a turning point in integration and indexation of quality systems in the education process in Latvia.

**Jānis Vanags, Dr.oec., Dipl.ing.,** professor Scientific and academic interests of J. Vanags are related to Latvian national economy, engineering economics, management of buildings and structures and real estate valuation, real estate economy, microeconomic and macroeconomic processes, sustainable development. Professor J.Vanags is an author of several scientific publications, including 5 books and co-author of monographs “Financing Models for Renovation of the Housing Stock in Latvia” and “Socioeconomic Aspects of Interaction between Urban and Regional Development”. In parallel to work, he is an adviser to SIA “Consalis”. The qualification of Prof. J.Vanags corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study courses “Foundations of Real Estate Economy” and “Pricing in Construction”, “Real Estate Economy (study project)”.

**Jelena Malahova, Dr.oec., associate professor.** Research components in work with students are ensured by active participation in qualification improvement seminars, participation in scientific conferences and development of publications. Active participation in different projects and scientific contract work. Within the scope of the study process students learn latest information in accordance with Regulations of the Cabinet of Ministers No. 716 “Minimum Requirements for the Content of the Mandatory Course in Civil Defence and the Content of Training of Employees in Civil Defence”. Author and co-author of several scientific publications. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses.

**Juris Saulitis Dr.oec.,** FEEM Emeritus Professor. Long-term pedagogic and administrative work experience at the university. Author of important studies on the history of development of the Latvian national economy, as well as current problems in the development of national economy. He is known among Latvian economists as the organiser and inspirator of annual scientific seminars on Latvian economic problems with active participation of representatives of other universities.

**Karine Oganisjana, Dr.paed. assoc. prof.** Associate professor and leading researcher of the Faculty of Engineering Economics and Management (FEEM) of the Riga Technical University (RTU). Academic and scientific work experience at RTU since 2012.

Karine Oganisjana has higher education in physics, English, secondary school and higher pedagogy (doctoral thesis “Promoting entrepreneurial spirit of students in the study process”). Therefore, assoc. professor has extensive interdisciplinary professional interests and research experience, which was obtained when implementing ESF and NRP research projects as a leading researcher or project manager in Latvia, as well as participating in international research projects as a member of ASEM (Asia Europe Lifelong Learning Research HUB) since 2011, as a member of the Management Committee of COST (European Cooperation in Science and Technology) since 2019, as an invited researcher in a project of the Malaysian Ministry of Education (2012-2014), etc. Karine Oganisjana is

an LSC expert in economics and business, as well as in education sciences.

Karine Oganisjana has over 60 scientific publications in management, economics, education, research and related areas. More than 16 of them are published in internationally recognised editions or at conferences with indexing in international databases (Web of Science and *Scopus*). Dr. Karine Oganisjana is the author and/or co-author of 2 textbooks, 4 monographs, 4 collections of tasks in physics, 1 industrial design, as well as a scientific editor for 1 monograph.

**Konstantins Didenko, Dr.oec. professor.** Professor of the Faculty of Engineering Economics and Management of the Riga Technical University (RTU). Academic and scientific work experience is more than 49 years.

Konstantins Didenko also has a doctoral degree in economics, is also an engineer and economist in the mechanical engineering economy and organisation speciality, which provides an excellent basis for academic and research work in innovation, management and business areas, therefore scientific research of professor focuses on different aspects of business, economic substantiation of engineering solutions, innovation management, modelling of economic processes.

Konstantins Didenko has over 200 scientific publications in management and economics. More than 20 of them are published in internationally recognised editions or at conferences with indexing in international databases.

**Kristine Fedotova, Dr.oec., assistant professor.** Her research interests focus on real estate management, sustainable development problems in the real estate market. K.Fedotova is an author and co-author of scientific publications, including a co-author of two books and regulations. Improves qualification on a regular basis by attending seminars, conferences and professional qualification improvement courses. Presently, is working on the ERASMUS + project Sustainable Public Buildings Designed and Constructed in Wood (Pub-Wood). ERASMUS+; KA2-Cooperation of innovation and the exchange of good practices; KA203 – Strategic Partnerships for higher education. No. 2018-1-LT01-KA203-046963. 01.09.2018 - 31.08.2020. The qualification of assistant professor K.Fedotova corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study courses “Specialising Internship”, “Designing Internship”, “Real Estate Market and Advertising” and “Auditing Activity in Construction”.

**Krilovs Leonīds, Dr. oec., FEEM assoc. professor** Education: higher education, historian, diploma of a teacher of history and social studies, doctoral degree in economics. Professional experience: pedagogical activity, research at RTU, GFK, management experience at RPIVA, KPI, SIA “Transfer Latvija” Contributions and results: scientific and methodological publications, articles, courses of lectures, monographs in economics and history of economic thought ensure compliance of qualification of the member of teaching staff with conditions of the study programme “Economics”.

**Maija Šenfelde Dr.oec., RTU professor.** Long-term pedagogic and administrative work experience at the university. LSC expert. Author of 4 editions of textbook “Macroeconomics”, as well as author of several scientific monographs in the field of economics. Active participation in scientific conferences to improve own competences, improvement of qualification at different courses and seminars. Participates in annual economic conferences organised by the Bank of Latvia every year, as well as in “Expert talks”. The accumulated experience and constant self-improvement ensures the ability of the member of teaching staff to provide students with necessary theoretical knowledge, as well as familiarise students with pressing issues in macroeconomics, national economy, international economy and possible solutions, which, in turn, develops the abilities of students to evaluate economic, social and political processes in the world and their impact on the Latvian economy. Led and participated in international projects.

**Māris Jurušs, Dr.oec. associate professor.** Associate professor of the Faculty of Engineering Economics and Management (FEEM) of the Riga Technical University (RTU). Academic and scientific work experience at RTU more than 7 years.

Māris Jurušs has been working in the public sector, in business and in the academic area for many years. Worked at the Ministry of Finance relating to tax matters for several years. Has developed policy planning documents, laws and regulations of the Cabinet of Ministers, national positions and points of view, participated in committees of the European Commission, different work groups and resolution of practical administration matters. Worked in an international auditing company by leading different projects on tax matters and business development matters.

For several years, works as a lecturer at RTU, teaches study subjects on taxes, as well as participated in different projects and research for taxes, customs and other matters. In 2019, RTU issued a textbook "Taxes" by Māris Jurušs.

**Natalja LĀCE Dr.oec. professor.** N. Lāce graduated the Faculty of Engineering Economics of the Riga Polytechnical Institute (currently the Riga Technical University – hereinafter referred to as RTU) (1982), obtained a scientific degree of a doctor of economics for her doctoral thesis "Economic justification of the metal saving process in designing of articles" (degree of a candidate in economic sciences, 1990 and Dr.oec., 1993) and for 30 years has been occupying academic positions at the RTU Faculty of Engineering Economics and Management (hereinafter referred to as FEEM). N. Lāce has 12 years of experience as a professor, 9 years as the head of department 12 years as a director of the programme at RTU. Her pedagogical activities include bachelor's, master's and doctoral study programmes. Professor Lāce is the head of the Department of Corporate Finance and Economics and the director of the Master programme "Business Finances" at RTU. Scientific interests of prof. Lāce are related to the critical factors of performance of small and medium-sized enterprises and innovation, as well as different financial aspects of business. N. Lāce is an LSC expert in Entrepreneurship and Business, as well as political science, she has extensive interdisciplinary professional interests and research experience obtained when leading scientific projects: "Development of innovation and business in Latvia in accordance with the Smart Specialisation Strategy" (NRP EKOSOC-LV), "Strengthening securitability of the Latvian population by increasing the level of financial literacy (394/2012)" (LSC), "Conducting interdisciplinary research in cross-cultural environment" (ERASMUS), "Development of a training methodology for the implementation of sustainable development in small and medium-sized companies based on the life cycle of a company" (RTU, MoES), etc. 8 doctoral students successfully defended a doctoral thesis under supervision of N. Lāce. Presently, 5 doctoral theses are being supervised. Published theses (2013 - 2019): 2 scientific monographs, part of 1 scientific monograph (indexed in WoS), 60 scientific articles in international editions, 3 books. Since 2005, 46 scientific articles have been included in the Web of Science database; 47 – in the Scopus database. H-index – 5 (WoS)/h-8 (Scopus).

**Remigijs Počs, Dr.habil.oec, professor,** academician of the Latvian Academy of Sciences. Pedagogical work for 40 years. Taught study courses in the field of economic, mathematical and statistical methods: quantitative methods in economics and management; modelling of macroeconomic processes; econometrics; economically statistical modelling and forecasting; modelling of transport processes.

**Sanda Geipele, Dr.oec., associated professor,** expert in social sciences of the Latvian Scientific Council in the field of economics and business. Work experience has been obtained in the private sector and in public administration, including real estate tax administration in the Municipal Revenue Office of Riga City Council. Her scientific interests are related to real estate market sustainability development problems, resource management, construction sector, including land

use management and institutional economy. She is the author and co-author of more than 60 scientific publications, including the author of a scientific monograph “Real Estate Market Development Management System in Latvia” and monograph “Real Estate and Economic Development: Science and Practice”. Assoc.prof. S.Geipele currently is a project leader of INTERREG CB project “Coast4us” (01.01.2018 – 31.12.2020), and two INTERREG EU projects “OptiWaMag: Optimization of waste management in urban spaces and in households” (01.08.2019 – 31.01.2023) and “PROGRESS: PROMoting the Governance of Regional Ecosystem Services” (01.08.2019 – 31.07.2023). The qualification of Assoc.prof. S.Geipele corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study courses “Property and Taxes”, “Introduction to Research in Real Estate Sector” and “Real Estate Valuation (study project)”.

**Tatjana Tambovceva, Dr.oec, Dipl.ing., professor**, expert in social sciences of the Latvian Scientific Council in the field of economics and business. Her research and academic interests are related to ecologically oriented management, project management in construction, sustainable development. Professor T.Tamboceva improves her professional qualification by participation in the ERASMUS mobility programme on a regular basis. Professor T.Tamboceva is the author of several scientific publications, co-author of books and monographs. The qualification of Prof. T.Tambovceva corresponds to the conditions of implementation of the study programme and the requirements of regulatory enactments, as well as ensures the achievement of aims and learning outcomes of the study programme and study course “Project Management in Construction Business and Real Estate Administration and Management”.

**Valērijs Skribans, Dr.oec.**, leading researcher. 20 years of experience in scientific work. Professional economist (over 10 years of practical experience in positions of an economist, chief economist and financial director). Author of over 60 publications, incl. monographs and books; participated and led 12 scientific research projects; reads lectures in Latvia and abroad (Iceland, Portugal, Romania, Albania, Poland, Tanzania, etc.) on a regular basis. Received scientific awards several times (Best paper award, etc.), member of several international societies, scientific committees of conferences and journals.

Visiting lecturers are also involved in the implementation of the study programme:

- On 11 March 2015, there was a lecture by Leonardo Piccinetti (*Europe for Business Ltd*) “European research and innovation policy and programs, new challenge for university – industry collaboration”;
- On 10 May 2017, there was a lecture by Alan Barrel (*Entrepreneur in Residence, Centre for Entrepreneurial Learning, Judge Business School, University of Cambridge, UK*) “Renaissance and the Industrial Revolutions of the past to the future”;
- On 17 May 2017, there was a lecture by Pavlo Sheremeta (*Supervisory Board Member, Raiffeisen Bank Aval, Ukraine*) “Impact of fast developing technologies on people, culture and management”;
- In September 2017, assoc. professor of the Izmir Institute of Technology (Turkey) Metehan Sorkun read a visiting lecture about Modelling management problems with linear programming; Using graphical method to linear programming models; Interpreting the solution of linear programming models using software;
- In February 2018, Lidija Kraujaliene from the Vilnius Gediminas Technical University (Lithuania) read a visiting lecture on Business Projects, Project Preparation and Evaluation.
- In September 2018, a visiting lecturer from the Dresden University of Applied Sciences (Germany) Silke Buhl read a lecture about “Intercultural theories”; “Intercultural Aspects in Marketing”;

- In September 2018, a visiting lecturer from the Šiauliai University (Lithuania) Vita Juknevičiene read a visiting lecture about “Management of innovation systems”;
- In October 2018, a visiting lecturer from the Wrocław University of Economics (Poland) Karolina Daszyńska-Żygadło read a lecture about “Corporate Sustainability”.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

The academic staff of the doctoral program “Management Science and Economics” carries out regular scientific researches and scientific publications are prepared on the results of the research activities (see Figure X- information from Scival). In total, during the reporting period (counting each author individually) 921 publications have been prepared (see Table x), incl. 194 publications have been included in SCOPUS, 200 WoS, 16 Springer, but 175 in other databases. It should be noted that the publications included in the doctoral study programme have been quoted 279 times. The most quoted teaching staff of the programme are prof. I. Geipele (77 times), Prof. I. Lapiņa (60 times), Prof. N. Lāce (59 times) and J. Mazais (30 times). The best publications of members of teaching staff and the justification are shown further in the report.

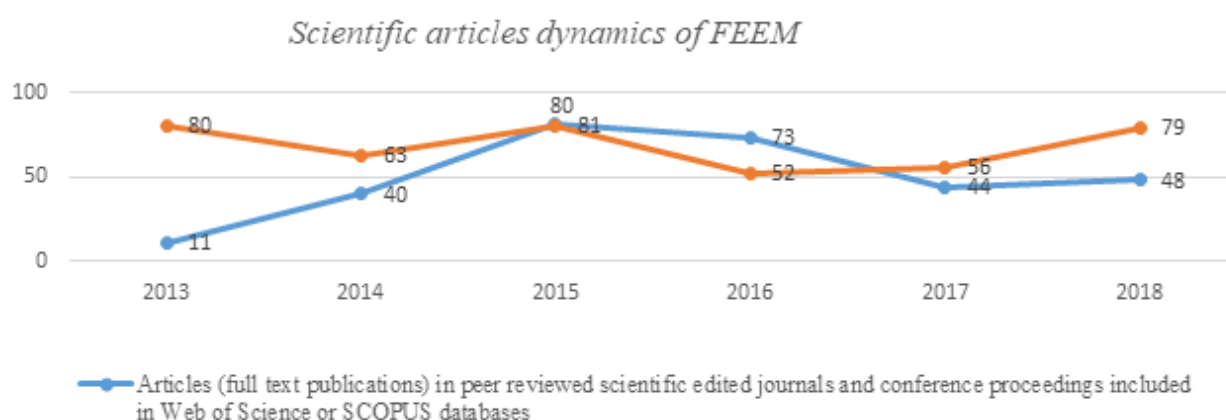


Figure. Dynamics of publications of FEEM teaching staff included in the SCOPUS database (information from Scival).

**Number of publications in doctoral study programme “Management Science and Economics” in 2013-2018**

Vārs uzvārds	Kopā	SCOPUS	WoS	Springer	IEEE Xplore	Citi	Citāti
Aivars Krastiņš	15	0	5	1	0	4	0
Aleksandrs Fedotovs	4	0	0	0	1	1	0
Armans Auziņš	32	7	7	0	0	7	6



Deniss Ščeuļovs	37	9	6	1	0	10	0
Elīna Gaile -Sarkane	50	13	14	3	0	13	1
Ilze Judrupa	25	1	3	0	0	5	0
Ineta Geipele	180	35	29	0	4	32	77
Inga Lapiņa	72	21	22	3	0	11	60
Ingūna Jurgelāne-Kaldava	15	8	9	0	0	5	9
Jana Eriņa	26	11	8	0	0	7	0
Jānis Ieviņš	31	6	10	0	0	9	2
Jānis Mazais	14	2	4	1	0	2	30
Jānis Vanags	32	2	2	0	0	5	4
Jeļena Malahova	28	6	12	0	0	10	1
Juris Saulītis	5	0	0	0	0	1	0
Karine Oganisjana	22	6	7	1	0	3	2
Kristīne Fedotova	25	3	0	0	0	0	2
Maija Šenfelde	52	5	14	1	0	12	7
Māris Jurušs	24	3	4	0	0	9	2
Natalja Lāce	74	27	18	4	0	9	59
Remigijs Počs	23	5	3	0	0	3	0
Sandra Geipele	53	13	7	0	1	7	11
Tatjana Tambovceva	66	7	13	1	0	6	5
Valerijs Skribans	16	4	3	0	0	4	1
KOPĀ:	921	194	200	16	6	175	279

#### Key publications indexed in Scopus or WoS:

1. Ozoliņš, M., Stensaker, B., Gaile-Sarkane, E., Ivanova, L., Lapiņa, I., Ozoliņa-Ozola, I., Straujuma, A. (2018). Institutional Attention to European policy Agendas: Exploring the Relevance of Instrumental and Neo-Institutional Explanations. *Tertiary Education and Management*, Vol.24, No.4, pp.338-350. DOI: 10.1080/13583883.2018.1459820 (Cited 1 time

**Reasoning:** This article addresses how European policy initiatives in higher education, research and innovation are diffused in the European higher education research and education area. The findings show that European Union membership and policy area seems to matter for the attention given to European policy initiatives, while administrative capacity at institutional level has less or quite mixed effects.

2. Puķīte, I., Geipele, I. (2017). Different Approaches to Building Management and Maintenance Meaning Explanation. *Procedia Engineering. Modern Building Materials, Structures and Techniques*. Vol. 172.pp. 905-912. DOI: 10.1016/j.proeng.2017.02.099 (Cited 13 times in Scopus)

**Reasoning:** The scientific article examines the connection between building and property management and building management system. It provides an insight into the concept of building management. Building management is a particular economic activity, a set of property maintenance, operation, repair and maintenance, because this is a legal and technical set of operations required for building maintenance and preservation of usable condition, as well as functionally required for the maintenance of the land to ensure that property is used in accordance with the purpose. The continuous growth of socially responsible building management indicates that there is a need for a more effective management system of the building lifecycle to provide sustainable residential property development.

3. Ceveris A., Rudzītis N. (2018). Promotion of Economic and Border Security: BOMCA Experience. The 22th World Multi-Conference on Systemics, Cybernetics and Informatics, July 8 – 11, 2018 – Orlando, Florida, USA. *Proceedings, Volume III*, pp. 1-6. (Indexed in Scopus)

**Reasoning:** The publication represents one of the biggest faculty research (BOMCA) results. The EU has been supporting the Central Asian states through various development and cooperation mechanisms. The real objective of the EU is to create barriers for religion extremists, terrorists, drugs in the Central Asian countries. The research discuss the problem empirical studies, develop recommendations for border security level increasing for various involved professions from state management and political fields, law enforcement institutions, scientists and researchers.

4. Vilcāne, I., Koppel, T., Bartušauskis, J., Urbāne, V., Ieviņš, J., Kaļķis, H., Roja, Ž. (2016). Electromagnetic Fields' Exposure to Head, Torso and Limbs in Office Workplaces. *Agronomy Research*, 2016, Vol.14, No.5, pp.1737-1744. ISSN 1406-894X (Indexed in Scopus).

**Reasoning:** The aim of this research was to investigate the electromagnetic fields in the modern office environment. Both low frequency and high frequency electromagnetic fields were studied. The sources of elevated electromagnetic fields and the conditions under which they occur were identified. Measurements were performed by following a 14-point human body model, which characterizes the overall exposure of a sitting person.

5. Mašins, G., Urbāne, V., Ieviņš, J., Malahova, J. Preventive Measures for Grass Fire Risk Reduction. (2015). *Integrated and Sustainable Regional Development: Proceedings of the International Scientific Conference "Economic Science for Rural Development"*, Latvia, Jelgava, April 23.-24., 2015. pp.205.-216. e-ISBN 978-9984-48-188-3. ISSN 1691-3078. e-ISSN 2255-9930. (Cited 1 time in Web of Science)

**Reasoning:** One of the problems within ecosystems is fire, which is a commonly recognized component of ecosystem disturbance regime. In the grassland ecosystem, such disturbances as fire and grazing or range management to some extent positively influence the productivity and plant diversity of the grassland ecosystem. But every year, as a result of last year's grass burning, people

die; residential and household buildings are burnt down causing several tens or even hundreds of thousands of euros material loss. The main aim of the paper is to create medium term solution for grass fire prevention and propose an action plan to reduce possible fire-extinguishing costs. Research is based on traditional economic science methods, such as analysis and synthesis, monograph method and practical experience of Latvian fire protection services.

6. Hudenko, J., Pocs R. (2015). The Discrepancy between the Service Export Incomes of Rail and Sea Transport among Baltic States Transit Corridors. The 19th World Multi-Conference on Systemics, Cybernetics and Informatics, July 12 – 15, 2015 – Orlando, Florida, USA. Proceedings, Volume I, pp. 63-69. (Indexed in Scopus)

**Reasoning:** The article is an example of publication in the transport and logistic fields. This study is aimed at the examination of trends of rail and sea transport service income level phenomenon in the Baltic States. Making the observation of export incomes in the Balances of Payment (BoP) of the Baltic States it was observed that there was no coherency between trends of rail and sea transport service income level. The study task is to understand what causes service income level differences and if it influences the competitiveness of transit corridors of the Baltic States. In addition, the study shows the faculties skills to apply modern quantitative methods in business and economics.

#### **Most important scientific monographs:**

7. Počs, R., Lāce, N., Oganisjana, K. *al.* (2018). "Economic Development" ".Chapter 3. Collective Scientific Monograph: "Beyond a Century. The Smart Latvia" (in Latvian). National Research Program EKOSOC-LV (ed. B.Rivža, E.Jermolajeva, A.Mukāne). Riga, Latvian Academy of Sciences, ISBN 978-9984-9542-9-

**Reasoning:** Collective scientific monograph describes research results obtained by the scientists of the Faculty within the national research programme (pp. 153-215) during 4 years (from 2014 to 2018). It includes the results on the competitiveness of Latvian enterprises in foreign markets, on relations of innovations and entrepreneurship, on the social innovations in Latvia in the context of sustainable development. Conclusions and proposals are given, most important problems are revealed and potential solutions are presented. Monograph has been named as one of the top 12 achievements in science in 2018 in Latvia by the Latvian Academy of Sciences.

8. Bistrova, J., Lāce, N. (2016). CSR Initiatives Introduction Status in Central and Eastern Europe and their Importance for the Equity Investor. Key Initiatives in Corporate Social Responsibility. Global Dimensions of CSR in Corporate Entities. Cham: Springer International Publishing, pp. 43-69 ISBN 978-3-319-21640-9. e-ISBN 978-3-319-21641-6. ISSN 2196-7075. e-ISSN 2196-7083. doi:10.1007/978-3-319-21641-6\_3 (Web of Science)

**Reasoning:** The chapter of scientific monograph disseminates the research results of the project „Enhancing Latvian Citizens’ Securitability through Development of the Financial Literacy” granted by Latvian Council of Science. Corporate governance (CG) becomes a very essential factor to consider prior to investing in the company. In order to assess the influence of corporate governance quality on Central and Eastern European companies’ stock performance, the CG assessment model was developed. The study demonstrate that companies with good CG quality are able to offer lower risk.

9. Ozoliņa V., Počs R. (2013). Macroeconomic Modeling and Elaboration of the Macro-Econometric Model for the Latvian Economy”. Riga, RTU Press, 2013. 191 p. ISBN 978-9934-10-511-1

**Reasoning:** This monograph provides the best representation of the performance of the faculty in

the field (particular “niche”) of scientific research in economic mathematical modelling. Results of the research, which are included in the monograph, have been discussed in many international conferences and include analysis of macroeconomic modelling experience of many countries. Recommendations of globally significant scientists in the field of macroeconomic modelling were taken into account in the development of the monograph. The monograph has obtained positive evaluation in Latvia and other countries. The monograph presents the results of analysis of Latvian development factors and trends based on extensive database. The Latvian macro-econometric model, developed by the authors, is described in detail. The model includes consumption, investment, fiscal sector, balance of payments, foreign trade, demographic and other indicators, as well as production and consumption of electricity. The model is applicable for analysis and forecasting of the main macroeconomic indicators.

10. Auziņš A. Evolution and Management of Land Use. Riga: RTU Press, 2016 – 270 p. ISBN 978-9934-10-780-1

**Reasoning:** In the scientific monograph, the problems of land use management are described, the ways of finding its solutions are indicated, and the significance of efficiency domain in land management is emphasized. The research analyses the theoretical aspects of the evaluation of land use and contains methodological solutions for promoting sustainable land management. Topicality of the research is related to the necessity to continuously monitor the usage of land-related resources as well as to substantiate the decision-making in order to provide an efficient and sustainable use of these resources in the public interest. The research methods and results illustrated in the scientific monograph can be applied to further scientific research projects. Scientifically sound findings and methodological solutions developed by the author can be used at all land management levels and are being approbated at municipal level.

#### **Most important publications in TOP 50 (SJR) journals:**

1. Tupenaite L., Kaklauskas A., Lill I., Geipele I., Naimaviciene J., Kanapeckiene L., Kauskale L. (2018). Sustainability Assessment of the New Residential Projects in the Baltic States: A Multiple Criteria Approach. *Sustainability* (Switzerland). Vol.10 Iss.5, Article No.1387. DOI: 10.3390/su10051387 (Cited 2 times in SCOPUS; SJR No.42 in the Category: [Social Sciences](#), Sub-category: [Geography, Planning and Development](#)).

**Reasoning:** The publication states that housing is one of the most important public priorities affecting urban development and therefore has a significant impact on sustainable development. A housing project can be regarded as sustainable only when all the dimensions of sustainability (environmental, economic, and social) are dealt with. The proposed sustainability assessment approach is not limited to the Baltic States and can also be used in other countries, applying the adapted sustainability assessment indicator.

1. Roša, A., Lace, N. (2018). The open innovation model of coaching interaction in organisations for sustainable performance within the life cycle. *Sustainability* (Switzerland). Vol.10 Iss.10, Article No. 3516. DOI: 10.3390/su10103516 (Cited 2 times in SCOPUS; SJR No.42 in the Category: Social Sciences, Sub-category: Geography, Planning and Development)

**Reasoning:** The article disseminates the research results of the project 5.2.2 “The Development of Innovation and Entrepreneurship in Latvia in Compliance with the Smart Specialization Strategy” of the National Research Programme 5.2 EKOSOC-LV. Organizations need innovation to be competitive and sustainable on their marketplace. Sustainable performance is an important precondition for growth and development. In spite of a body of literature, non-financial factors of sustainable performance remain an open issue. Coaching has gained considerable attention in the business world for its impact on sustainable performance. The current research investigates the use of

coaching interaction to facilitate organizational sustainable growth and development in the context of Miller and Friesen's five stage life-cycle model. Fifteen experts took part in the survey conducted from November 2017 to January 2018. The findings led to the creation of an open innovation model, which displays relationships between the appropriate coaching forms and types and the organizational life cycle stages. The developed model enables choosing the optimal way of coaching delivery at any life cycle stage. This model is particularly valuable for the coaching support programmes.

2. Tupenaite, Lilli., Geipele I., Naimaviciene J. (2017). Ranking of Sustainability Indicators for Assessment of the New Housing Development Projects: Case of the Baltic States. *Resources*. Vol.6, Iss.4. Article No.55. pp.1-21. DOI: [10.3390/resources6040055](https://doi.org/10.3390/resources6040055) (Cited 2 times in SCOPUS; SJR No.14 in the Category: Environmental Science, Sub-category: Management, Monitoring, Policy and Law Nature and Landscape Conservation).

**Reasoning:** Sustainable development is inconceivable without a healthy real estate market. Although international literature is rich in sustainability assessments, there are no tools developed for the assessment of new residential projects in the specific context of the Baltic States. This article proposes an integrated, hierarchically structured system of sustainability indicators to be used for assessment of the new housing development projects. This aim is achieved by accomplishing three objectives. First, based on a review of literature related to assessing building project performance and sustainable development in construction, the paper proposes an original hierarchically structured system of sustainability indicators suitable for the Baltic context. Second, based on a survey of experts, significances of criteria are estimated by the Analytic Hierarchy Process (AHP) method. Finally, the paper proposes recommendations to government authorities and real estate developers as to how to enhance the performance of new residential projects according to the principles of sustainability.

3. Mežinska, I., Lapiņa, I., Mazais, J. (2015). Integrated management systems towards sustainable and socially responsible organisation. *Total Quality Management and Business Excellence*. Vol.26, Iss.5-6, pp.469-481. DOI: [10.1080/14783363.2013.835899](https://doi.org/10.1080/14783363.2013.835899) (Cited 28 times in SCOPUS; SJR No.43 in the Category: Business, Management and Accounting, Sub-category: General Business, Management and Accounting).

**Reasoning:** In the last decades many companies have chosen to implement Management Systems by integrating Quality Management, Environmental Management, Corporate Social Security and other types of standardized management systems. The publication provides analysis how an Integrated Management System should be designed so that it can be used for building of a socially responsible organization that contributes to sustainable development.

4. Lentjušenkova, O., Lapiņa, I. (2016). The Transformation of the Organization's Intellectual Capital: from Resource to Capital. *Journal of Intellectual Capital*. Volume 17, Issue 4, Pages 610-631. DOI: [10.1108/JIC-03-2016-0031](https://doi.org/10.1108/JIC-03-2016-0031) (Cited 6 times in SCOPUS; SJR No.7 in the Category: Business, Management and Accounting, Sub-category: General Business, Management and Accounting)

**Reasoning:** The study explains the differences between the interrelated concepts: knowledge, competence, performance and IC. The authors offer an improved definition of IC by showing the evolution of its content and offer their own approach to the structure of IC that might facilitate tracking this asset in the organization's accounts and promote effective management of the asset.

**In summary, a conclusion can be made that the number of publications of members of teaching staff of the Doctoral study programme "Management Science and Economics" is sufficient to be able to ensure qualitative implementation of the study process.**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**In the reporting period, all members of teaching staff of the programme, including visiting teaching staff, were involved in the fulfilment of projects as project leaders (highlighted in grey in the table) or main performers, leaders of subprojects, leading researchers, researchers and so on.**

56% of all the teaching staff have led projects or subprojects (see Table). In the reporting period, absolutely all (100%) of teaching staff were involved in the implementation/fulfilment of projects. Doctoral students are also involved in the implementation of projects.

*Teaching staff of the programme – project or subproject leaders in thematic groups of projects in 2013-2018.*

Nr. p.k.	Uzvārds	VPP vai LZP granti	Uzņēmumu pasūtījumi LV	EEZ	H2020	Interreg	Erasmus+	BOMCA	Citi projekti LV	Citi projekti EU
1	<b>Auziņš</b>		x		x	x			x	x
2	<b>Didenko</b>		x						x	
3	<i>Dovlodbekova</i>		x			x			x	
4	<b>Eriņa</b>		x						x	
5	<i>Eriņš</i>		x						x	
6	Fedotova				x	x				
7	<b>Gaile -Sarkane</b>	x		x			x		x	
8	<b>Geipele I.</b>		x		x	x			x	x
9	<b>Geipele S.</b>		x		x	x			x	x
10	<b>Ieviņš</b>		x						x	
11	Judrupa	x	x			x			x	x
12	<b>Jurgelāne-Kaldava</b>		x						x	x
13	<b>Jurušs</b>	x	x			x		x	x	x
14	<b>Krastiņš</b>		x					x	x	x
15	Krilovs									
16	<b>Lāce</b>	x	x			x			x	x
17	<b>Lapiņa</b>		x	x			x		x	x

18	Malahova		X					X	X
19	Mazais	X	X	X			X	X	X
20	Oganisjana	X	X			X		X	X
21	Petere		X					X	X
22	Počas	X	X				X	X	X
23	Saulitis		X						
24	Sceulovs	X	X	X			X	X	X
25	Senfelde	X	X		X	X		X	X
26	Skribans	X	X				X	X	X
27	Survilo		X					X	X
28	Tambovceva		X			X		X	X
29	Vanags		X		X	X		X	X
30	Voronova		X					X	X

*The most important international projects, their source and amounts:*

Source of funding	Name of the project	Execution time	Allocated funds (euros)
European Union (co-financed by the European Commission)	<b>Border Management Programme in Central Asia</b> - (BOMCA 9). Phase 9. Agreement No. DCI-ASIE/2015/358-348. Consortium agreement No. 03000-3.2.2/22 <a href="http://www.bomca-eu.org">www.bomca-eu.org</a>	15/06/2015 – 31/12/2019	555706
Interreg Central Baltic Programme 2014-2020	<b>Coast4us</b> . CB627. INTERREG Central Baltic Programme 2014-2020. <a href="http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en">http://buni.rtu.lv/projects/interreg-cb-coast4us/?lang=en</a>	01/01/2018 – 31/12/2020	153000
ERASMUS+	<b>Sustainable Public Buildings Designed and Constructed in Wood</b> (Pub-Wood). ERASMUS+; KA2-Cooperation of innovation and the exchange of good practices; KA203 – Strategic Partnerships for higher education. No. 2018-1-LT01-KA203-046963. <a href="http://www.erasmus-plus.lt/uploads/files/ka203-tinkamos-paraiskos2018.pdf">http://www.erasmus-plus.lt/uploads/files/ka203-tinkamos-paraiskos2018.pdf</a>	01/09/2018 – 31/08/2020	40965
ERASMUS+	Programmes Cooperation to promote innovation and exchange of good practices support directions in the project of Strategic Youth Partnership "Shake up Start-ups", Nr. 2015-1-PL01-KA205-014238	October 2015 – October 2016	n/a
ESF	Project 8.5.2.0./16/001 "Improving the sectoral qualification system for the development and quality assurance of vocational education".	29/05/2017 – 01/11/2017	n/a
ESF	European Social Fund co-financed project <b>"Support for implementation of doctoral studies at Riga Technical University"</b> (Single No. 2009/0144 / 1DP / 1.1.2.2 / 09 / IPIA / VIAA / 005) ESF beneficiaries from 2010 to 2014. <a href="https://www.rtu.lv/content/view/2827/1392/lang.lv">https://www.rtu.lv/content/view/2827/1392/lang.lv</a>	2010 – 2014	n/a
EEA Grants	<b>Sociological Survey</b> "The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia" (Sustainable Development of Multi-Apartment Buildings in Riga Micro-Districts). L8237: Procurement No. RPAB2015 / 3. Customer's Contract No.RABAB-16-8-II. Contractor's Contract No.03000-3.12 / 16/17.// "The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia" (Sustainable Development of Multi-Apartment Buildings in Riga Micro-Districts): The European Economy area project No.2 / EEZLV02 / 14 / GS / 007. <a href="http://buni.rtu.lv/2018/03/26/sustainable-development-multi-apartment-buildings-riga-micro-districts/?lang=en">http://buni.rtu.lv/2018/03/26/sustainable-development-multi-apartment-buildings-riga-micro-districts/?lang=en</a>	January 2016 – May 2016	28000
ERDF	<b>A value-led planning approach for sustainable land use and development</b> . Activity 1.1.1.2 "Post-doctoral research aid" of the specific aid objectives 1.1.1 "To increase the research and innovative capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure" of the operational programme "Growth and employment" (No. 1.1.1.2/VIAA/1/16/161). <a href="http://buni.rtu.lv/eraf/?lang=en">http://buni.rtu.lv/eraf/?lang=en</a>	2017 – 2020	72868
ERDF	Development of multifunctional nanocoatings for aviation and space techniques constructive parts protection// ERDF: Project 1.1.1 <b>"Development of Science and Research Potential"</b> of the Priority 1.1 "Higher Education and Science" of the Addendum to the Operational Program "Human Resources and Employment" Activity 1.1.1.2 "Attracting Human Resources to Science" 2013/0013/1DP/1.1.1.2.0/13/APIA/VIAA/027 Project of Riga Technical University. Leader of Scientific Research Work Group, Senior Researcher of Project Work Package Research in Sub-activity of The Development and Design of Engineering Economic Indicator System for Nanotechnology Industry Product Manufacturing. Responsible for resources and results management in research work group, responsible for the scientific results in WP. <a href="http://buni.rtu.lv/projects/?lang=en">http://buni.rtu.lv/projects/?lang=en</a>	2013 – 2015	498003
ERDF	<b>Establishment of the National Significance Research Centre</b> for Production of Energy and Environmental Resources, and Technology of Sustainable (including the development of the Transport and Mechanical Engineering Center) // ERDF: Operational Program for Entrepreneurship and Innovation 2007-2013 2.1. Priority "Science and Innovation", Measure 2.1.1 "Science, Research and Development", Activity 2.1.1.3 "Development of Science and Research Infrastructure", Sub-activity 2.1.1.3.1 "Development of Science Infrastructure": Single. 2011/0060 / 2DP / 2.1.1.3.1. / 11 / IPIA / VIAA / 007 (PVS ID 1627). - Participants: Riga Technical University, University of Latvia, Institute of Biology at University of Latvia, Institute of Physical Energy at University of Latvia, - BUNI participation in EVIIT. (The project is planned for the developed cooperation strategy (2011-2020). <a href="https://projekti.rtu.lv/external/rtu-projektu-publicitate/ERAF/Aktu%C4%81lie%20projekti/2_files/jaunakie_notikumi_projekta_01_07_2013_-30_09_2013.pdf">https://projekti.rtu.lv/external/rtu-projektu-publicitate/ERAF/Aktu%C4%81lie%20projekti/2_files/jaunakie_notikumi_projekta_01_07_2013_-30_09_2013.pdf</a>	2011 – 2020	107534
INTERREG IVC 1097R4	MICROPOL – Smart Work Centers in Non-Metropolitan Areas. European Territorial Cooperation Programme INTERREG IVC project. <a href="http://micropol-interreg.eu">http://micropol-interreg.eu</a>	01/01/2012 – 31/12/2014	190962
Norwegian Financial Instrument Project	"Capacity building for planning territorial development of Latvian planning regions and local self-government" (Nr. 4.3.-24/NFI/INP-002 Project realised within the framework "Smart specialisation opportunities for Vidzeme Planning Region", SIA „SAFAGE Baltija"	18/12/2013 – 30/04/2016	Participation as experts
Interreg Europe Norwegian Financial Instrument Project	Norwegian Financial instrument project in the Ministry of Economy of the Republic of Latvia Interreg Europe PGI00304, CLUSTERS3 "Leveraging Cluster Policies for Successful Implementation of RIS3"	April 2016 – March 2020	Participation as experts

Deutsche Bundesstiftung Umwelt (DBU) MOE Austauschstipendiumprogramm - Scholarship Exchange Programme with CEE countries for a research in Germany	Deutsche Bundesstiftung Umwelt (DBU) MOE Austauschstipendiumprogramm - Scholarship Exchange Programme with CEE countries for a research in Germany	2016	6000
Swedish Institute Baltic Sea departments	Project financed by the Baltic Sea Unit of the Swedish Institute for research work in the Baltic land development network (BLDN).	21/12/2015 - 30/06/2016	4000
EEA and Norway Grants Projects	"EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia", Norway Grants, ID 1969. <a href="http://feem.rtu.lv/?page_id=5016">http://feem.rtu.lv/?page_id=5016</a> ; <a href="http://transfer.rtu.lv">http://transfer.rtu.lv</a>	01/06/2015 - 28/02/2017	107880

## Research commissioned by companies and organizations:

Source of funding	Name of the project	Execution time	Allocated funds (euros)
State budget funding (Ministry of Economics)	Labour market medium-term and long-term forecasting tool improvement (Project manager: asoc.prof. V. Skribans)	01/04/2011 - 31/12/2013	130144
State budget funding (Ministry of Education and Science)	Proposed changes to the terms of Regulations of the Cabinet of Ministers Oct.2, 2007, No. 655 "Regulations Regarding Minimum Costs for the Implementation of Vocational Education Programmes Per One Educated" (Project manager: prof. I.Eriņš)	07/07/2017 - 01/12/2017	60500
Private funding	Customs Counseling and Entrepreneurship Logistics Center Courses (Courses managers: prof. A.Krastiņš, prof. R.Počs)	2013 - 2018	47739
Private funding	Sociological survey for project implementation (Project manager: prof. I.Geipele)	21/01/2016 - 21/04/2016	27999
Private funding	Study on Natural Losses of Oil Products and Alcoholic Beverages in Customs Area (Project manager: assoc. prof. M.Jurušs)	01/02/2013 - 30/09/2013	27168
Private funding	International Scientific Conferences: "Economics and Entrepreneurship" (SCEE), "Economics and Management" (ICEM), 25th INFORUM World Conference (Project managers: prof. E.Gaile-Sarkane, prof. R.Počs)	2013 - 2018	24865
State budget funding (Ministry of Education and Science)	Study on updating study costs in higher education, preparing proposals for consolidation (Project manager: prof. I.Eriņš)	30/05/2014 - 19/12/2014	19775
Private funding	Study of influence of tobacco product placement ban at point of sale on the economy and on prevalence of smoking in Latvia (Project manager: assoc. prof. M.Jurušs)	02/09/2016 - 31/12/2016	15000



State budget funding (Ministry of Education and Science)	On factors affecting the financing of vocational secondary education (Project manager: prof. I.Eriņš)	17/07/2014 – 30/12/2014	11384
Private funding	DCAI realized basic professional development programs for commercialization such as: "Fire Safety and Protection - 160 Hours", "Work Safety and Security - 60 Hours", "Electrical Safety category: A, Bz, B, Cz and C" and commercialized expert consulting services. (Courses managers: J.Bērziņš, V.Jemeljanovs, V.Ziemelis)	2014 - 2018	11046
JSC "Dobeles Dzirnāvnīks" funding	Analysis of accidents at work, modelling of possible development variants and their simulation at the Combined Feed Plant (Project manager: prof. J.leviņš)	2017	3999
"MAXIMA Latvija" Ltd. funding	Provision of a statement on the applicable regulatory enactments (in force as of 21/11/2013) on a scientifically based interpretation of specific issues of occupational safety and civil protection (Project manager: prof. J.leviņš)	2016	2178
"Ventspils nafta termināls" Ltd. funding	Identification of special risks for "Ventspils Nafta Termināls" Ltd. job groups and preparation of independent conclusions on the risks identified (Project manager: prof. J.leviņš)	2015	1908
JSC "Inspecta Latvia" funding	Evaluating of the technological process on-site: heat production equipment (burners, heat exchangers, boilers, etc.); sources of friction heat (straps, bearings, etc.); presence of hot surfaces; leakage of burning fluids or gases through compounds (Project manager: prof. J.leviņš)	2015	1210
Real Estate Industry enterprises funding	Upgrading of Real Estate Appraisers, collaboration with industry partners/entrepreneurs (Project manager: prof. I.Geipele)	2015, 2017, 2018	4000

“Rīgas Arhitektu birojs” Ltd. funding	Sociological Survey “The Assessment of Climate Impact, Adaptation to Climate Changes and the Social and Economic Values of Adaptation Possibilities for Multi-Apartment Building Districts in Riga and Latvia” (Sustainable Development of Multi-Apartment Buildings in Riga Micro-Districts) (Project manager: prof. I.Geipele)	2016	28000
“Rīgas namu pārvaldnieks” Ltd. funding	Opinion survey (Sustainable Development of Multi-Apartment Buildings in Riga Micro-Districts). (Project manager: prof. I.Geipele)	2016	16000
RTU, Finance Department funding	Real estate valuation for RTU needs (Project manager: prof. I.Geipele)	2015, 2016, 2017, 2018, 2019	1000
State budget funding (Ministry of Education and Science)	Applied research project “Exploration of Alternative Models to Foster Cooperation Between Industry and Study Process” (Project leader: prof. E.Gaile- Sarkane)	2017	2800
Private and Rural Support Service of Latvia funding	Start-up “Milzu!” <a href="https://www.milzu.lv/en/">https://www.milzu.lv/en/</a> established by Enno Ence, the graduate of FEEM, started production in 2014. The business model was approbated during studies at the MBA program “Innovation and Entrepreneurship”. (Project leader: Enno Ence)	20014 – present	200000
European Regional Development Fund within the framework of the project “Latvian Food Industry Competence Centre” funding	The research project “Milzu!” Research on new cereal recipes and “Milzu!” research and development of a children’s toy ecosystem for cereal flakes in order to increase the added value of food products” No. 1.2.1.1/16/A/004 (Project leader: Enno Ence)	2016 – 2018	200000
Private and Latvian Investment and Development Agency funding	Company “Trakais Rotors” <a href="http://www.crazyroller.eu">www.crazyroller.eu</a> , established in 2008 by Roberts Brivlauks, the graduate of FEEM, got financial support for exploring export market. The business idea for “Trakais Rotors” was developed, and prototype was created during studies at the MBA program “Innovation and Entrepreneurship”.	2016, 2017, 2018	6000

Altum, Imprimature, EU Structural Funds, EEZ funding	Start-ups “ <i>PlayGineering</i> ” and “ <i>PlayGineering Systems</i> ”, established in 2011 by <u>Ričards Fomrats</u> , the graduate of FEEM. The business idea was developed during studies at the MBA program “Innovation and Entrepreneurship”.	2016 – 2018	600000
Private and Latvian Investment and Development Agency funding	Start-up <i>infy.me</i> was established by <u>Oskars Putniņš</u> , the graduate of FEEM, with support of the grant awarded by business idea competition “Idea Cup”	2013	1000
Private funding	Start-up <i>Water2Snow</i> <a href="https://www.water2snow.lv/">https://www.water2snow.lv/</a> was co-founded by <u>Aija Ambrasa</u> the graduate of FEEM. The business idea for <i>Water2Snow</i> was developed during studies at the MBA program “Innovation and Entrepreneurship”.	2016 – present	
Riga Technical University funding	<u>Vita Brakovska</u> , the graduate of FEEM, organizes Simulation Fairs (Simulācijas tirgus) where students present their products to business experts (yearly event ongoing since 2013). More than 60 teams presented their ideas to more than 60 experts that represented different sectors and have benefited by impulses received during the participation in the Simulation Fair, incl. Coffee Tower, Brigita Stroda, Brands PIKU, Šmita Lampas and others.	Founded in 2013	1200
Private funding	Start-up “ <i>Wood Design Workshop</i> ” was established <u>Vita Brakovska</u> , the graduate of FEEM.	2018 – present	
Private and Riga City Council financing programme “Atspēriens” funding	<u>Maris Millers</u> , the graduate of FEEM, established start-up “ <i>DriveWith</i> ”.	2013 – present	7700

Riga Technical University funding	<p>Development of prototypes according to the needs of the Children's Clinical University Hospital in Riga.</p> <p>The following prototypes have been developed by students of the MBA program "Innovation and Entrepreneurship" under supervision of <u>professor E. Gaile- Sarkane</u>:</p> <p>1) Change of design of medical equipment in order to make it children-friendly;</p> <p>2) Development of a toy to reduce stress of children in the hospital "<i>Hug me and I hug you</i>";</p> <p>3) Design of interactive wall mounted game for different patients (children);</p> <p>4) Development of www application <i>dr.Buddy</i>, to provide real time information to children's parents and medical personnel in the ambulance.</p>	October 2018 – April 2019	4480
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The total funding 2013 - 2018 was more than 17 million Euros, from which for science activities 2.89 million Euros, of which 41.2% was the national base funding, 19.9% was the financing of public institutions, 29.7% was the financing of international organizations, 6.6% was private financing, 2.5% was the financing by the EU Structural Funds.

The national funding was successfully used to implement the State Research Program and various research projects commissioned by state institutions. This funding was used to meet the needs of scientific activities and scientific development, including staff salaries, science infrastructure and administrative capacity building.

#### **4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Academic staff of the study programme gets involved in scientific research in the field of their competence at national and international level and the obtained information, experience and latest research methods are integrated in the study process. Research directions correspond to the priorities defined by the state and are linked to RIS3 specialisation areas.

The results of any research project are integrated in the study process. For example, **the research methodology and results** of the **National Research project "EKOSOC-LV"**, which was implemented together with cooperation partners (SSE Riga, LU, LLU, VeA, etc.) (title in English: National Research Program 5.2. "Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community EKOSOC-LV". (2014 – 2018), Ministry of Education and Science No. 02.2-09/13. [http://www.lza.lv/index.php?option=com\\_content&task=view&id=2489&Itemid=451](http://www.lza.lv/index.php?option=com_content&task=view&id=2489&Itemid=451))) which is mentioned in Paragraph 2.4 of this report **have been integrated in study courses** "Modern Theories of Social Sciences", "Research Methodology in Social Sciences", "Business Management

Problems (doctoral seminar)", "Modern Economic Problems (doctoral seminar)", etc.

One of the most important researches in the area of national security is **international project "BOMCA"**, the results of which **are used** to provide content **for the study process "Strategic Customs Management"**.

**Research results from the Interreg project "Metropolitan Areas.** European Territorial Cooperation Programme INTERREG IVC project. (01/01/2012 – 31/12/2014). Website: <http://micropol-interreg.eu> and other **have been integrated** in study courses **"Sustainable Development of The Construction Sector and Real Estate Market"** and **"Sustainable Development of Economics"**.

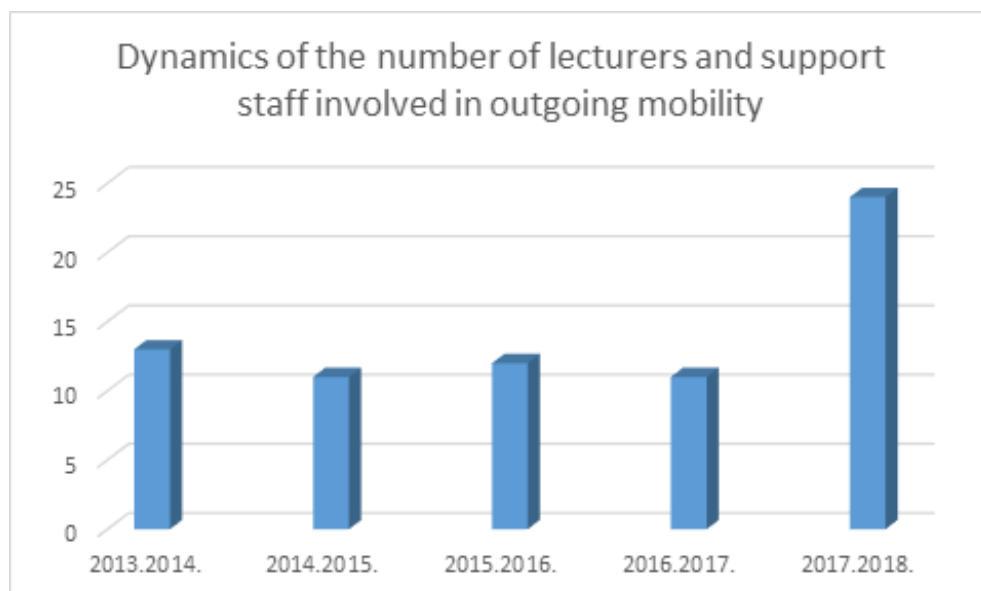
**Project results have a significant impact on the study programs.** The projects mainly involve the academic staff and doctoral students most of whom prepare and lead study courses. **Participation in projects allows doctoral students and researchers to provide students and others involved in scientific research with new and up-to-date knowledge.** It helps to develop the ability to independently and critically analyse the results of the projects and the developed solutions which can be used in the respective fields of research to solve important tasks and to create and manage independent projects.

**Within the framework of the State research program "Transformation of Economy, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society – A New Approach to Creation of a Sustainable Knowledge Society (EKOSOC-LV)"** (2014 – 2017), three interdisciplinary projects "Explore the competitiveness of Latvian companies in foreign markets and make proposals for its strengthening", "Development of innovation and entrepreneurship in Latvia supporting the smart specialization strategy" and "Involvement of society in social innovation processes for ensuring sustainable development of Latvia" were implemented. The results were integrated in almost all study programs of the study direction, most broadly in the doctoral study **programme and especially in study course "Research Methodology in Social Sciences"**.

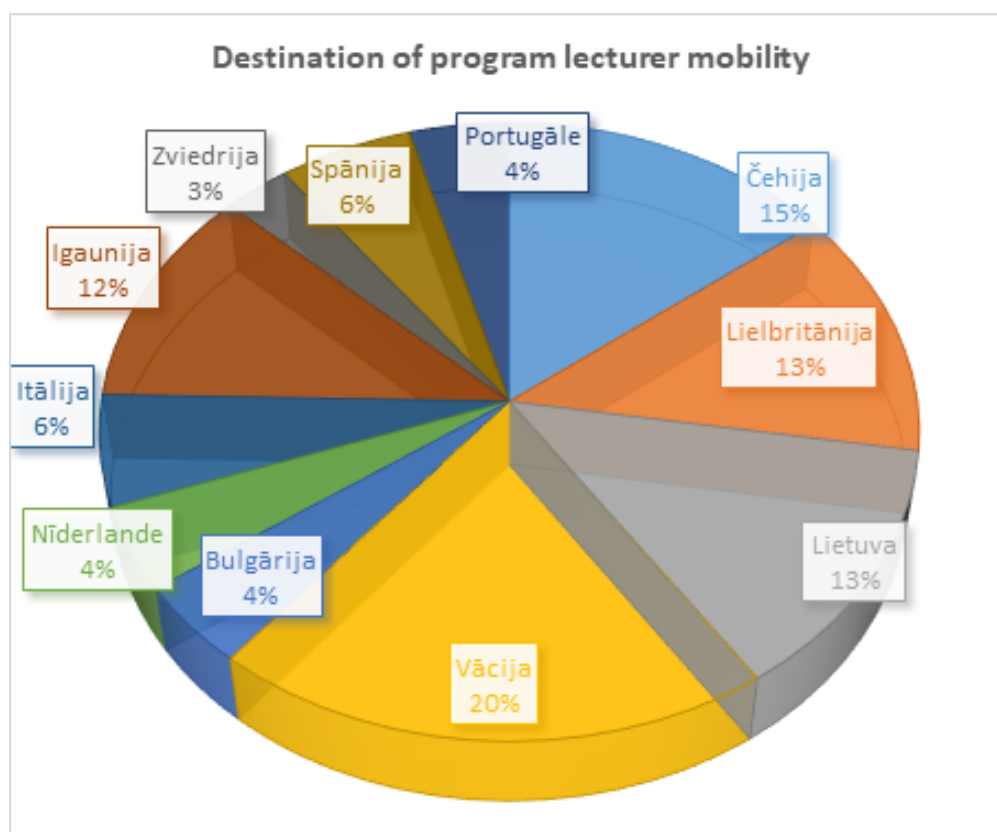
For example, the intermediate results of the **current post-doctoral research project** (2017 – 2020) "A values-led planning approach for sustainable land use and development" and in the action of the European research project COST (2018 – 2022) CA17125 "Public Value Capture of Increasing Property Values" support the implementation of several FEEM study programs, thus, **the study course "Construction Industry and Real Estate Market Sustainable Development" is being improved.**

**ERASMUS+ Key Activity 2 (KA2) "Cooperation for innovation and the exchange of good practices"** Knowledge Alliances Program **project "Improving management competences on Excellence based Stress avoidance and working towards sustainable organizational development in Europe" (IMPRESS)** is in line with the European policy objectives to promote innovation in higher education. The project's research also aims to develop transversal skills by addressing organizational issues in higher education programs developed in cooperation with enterprises, considering the development of education modules and taking into account the industry experience. Results of this project were **implemented in the study course "Contemporary Social Science Theory"**.

Members of teaching staff actively participate in mobility activities. If the number of students within mobility remains unchanged, the number of teaching staff participating in mobility activities is growing rapidly.



Favourite destinations of teaching staff and support staff of the programme in the last 7 years have been Germany (20%), the United Kingdom (13%), the Czech Republic (15%), Lithuania (13%), Estonia (12%) and other countries. As a result of visits of university lecturers scientific publications have been prepared and published, project applications have been prepared, there has been knowledge transfer and integration in study subjects. Having analysed the data, the conclusion is that it is necessary to increase matching of mobility destinations with the ones set in faculty development plans.



#### Foreign teaching staff who have used mobility opportunities:

- On 11 March 2015, there was a lecture by Leonardo Piccinetti (*Europe for Business Ltd*) "European research and innovation policy and programs, new challenge for university - industry collaboration";
- On 10 May 2017, there was a lecture by Alan Barrel (*Entrepreneur in Residence, Centre for*

*Entrepreneurial Learning, Judge Business School, University of Cambridge, UK* ) “Renaissance and the Industrial Revolutions of the past to the future”;

- On 17 May 2017, there was a lecture by Pavlo Sheremeta (*Supervisory Board Member, Raiffeisen Bank Aval, Ukraine*) “Impact of fast developing technologies on people, culture and management”;
- In September 2017, assoc. professor of the Izmir Institute of Technology (Turkey) Metehan Sorkun read a visiting lecture about Modelling management problems with linear programming; Using graphical method to linear programming models; Interpreting the solution of linear programming models using software;
- In February 2018, Lidija Kraujaliene from the Vilnius Gediminas Technical University (Lithuania) read a visiting lecture on Business Projects, Project Preparation and Evaluation.
- In September 2018, a visiting lecturer from the Dresden University of Applied Sciences (Germany) Silke Buhl read a lecture about “Intercultural theories”; “Intercultural Aspects in Marketing”;
- In September 2018, a visiting lecturer from the Šiauliai University (Lithuania) Vita Juknevičiene read a visiting lecture about “Management of innovation systems”;
- In October 2018, a visiting lecturer from the Wrocław University of Economics (Poland) Karolina Daszyńska-Żygadło read a lecture about “Corporate Sustainability”.

The academic staff involved in the programme participates in conferences, organises conferences in Latvia and abroad, is represented in different editorial boards (see CVs of academic staff) and performs other research activities the results of which are included in the implementation of the study programme and preparation of young scientists.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The study programme has a mechanism for mutual cooperation between teaching staff. It promotes the improvement and interlinking of study courses. Study courses are improved on a regular basis based on proposals of students, industry development trends, latest research, scientific activity and innovation results.

There are regular meetings of teaching staff during the implementation of study courses and scientific work, where they exchange experience on topics of study courses, the results of scientific work, latest news on research, etc. (see Chapter 2.3). The curriculum is developed and improved in discussions by reaching mutual agreement on topics, emphases, responsibilities and compliance with regulatory enactments. All the teaching staff related to a specific study course are involved in the process of coordination of study courses thus ensuring that the topics covered in the study programme are constantly improved and updated in close mutual cooperation.

The achievement of aims and results of study courses and programme within the framework of the programme is implemented by organising on a regular basis seminars and discussions for the teaching staff on learning outcomes and basic quality assurance principles. **It can therefore be said that there is a mechanism for mutual cooperation between teaching staff, which promotes the development and interlinking of study courses/modules.**

**The study programme is designed to ensure a consecutive development of knowledge, skills and competences based on individual and group work, continuous communication between doctoral students and their supervisors.**

The interlinking of courses is specified in Paragraph 2.2 of the report. **First year of studies** - general study subjects implemented by all teaching staff involved in doctoral studies. At the end of the first year of studies, at least one publication is prepared and submitted for publication, a report is prepared and presented at an international conference. Scientific work takes place under the supervision of the supervisor. **The second year of studies** is devoted to specialized study subjects and doctoral seminars and development of the doctoral thesis.

**The third year of studies** is devoted to scientific work, research, publication of research results, participation in experience exchange and mobility projects. Doctoral student's individual work becomes more intensive, cooperation with the supervisor, as well as the regular possibility to meet with other doctoral students is ensured to ensure experience and knowledge transfer. Work on scientific publications continues, the early stage researcher establishes international cooperation. Doctoral thesis readiness at this stage is 70%. **During the fourth year of studies**, the final phase of the research preparation for submission to the Doctoral Council is ensured. Work on scientific publications continues, the early stage researcher establishes international cooperation. The fourth year of studies closes with the submission of the doctoral thesis for promotion.

**The information contained in study courses is logically interlinked, ensuring the development of knowledge and skills of students.**

The following measures are used to improve the content and quality of the study programme, **and to ensure mutual cooperation between teaching staff, exchange of experience and information related to study work:**

- Teaching staff meetings (at least once per semester);
- Meetings of the Scientific Commission (at least once in 2 months);
- Meetings of the Doctoral Council (if necessary, but less than 4 times a year);
- Doctoral seminars;
- Attestations of doctoral students within the framework of the structural units and at the faculty (twice a year);
- Academic conference (once a year)
- Workshops, conferences, think tanks and other measures.

32 teachers having a doctoral degree are involved in the implementation of the doctoral study programme, of which 75% or 24 are supervisor of doctoral theses, 59% or 19 persons participate in the implementation of the programme as teaching staff, including 25% or 8 teachers, who perform only teaching functions.

<b>Total (incl. 2 visiting teachers):</b>	<b>32</b>	<b>%</b>
<b>Supervisors</b>	<b>24</b>	<b>75</b>
<b>Teaching Staff</b>	<b>8</b>	<b>25</b>
<b>Participate in auditorium work</b>	<b>19</b>	<b>59</b>



Number of students in the last 3 academic years has been (2016/2017) – 61, (2017/2018) – 64 and (2018/2019) – 62, and therefore **the study programme has had one teacher per 2 students on average.**

Taking into account that academic staff from other RTU structural units, visiting lecturers and foreign visiting lecturers also work in the study programme, then the ratio of students to teaching staff may be evaluated also in the context of the study direction and faculty.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5. Statistics about students of study program.pdf	5. pielikums. Statistikas dati par studējošajiem.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 _Study program coplience to state education sistem_ENG.pdf	6 Pielikums_Atbilstība valsts akadēmiskās izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8. Mapping of study courses.xlsx	8. pielikums Studiju programmas sasniegtajiem rezultāti.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 - Study program Management Science and Economics plan_1.pdf	9.pielikums_Studiju programmas Vadībinātne un ekonomika plāns_.pdf
Descriptions of the study courses/ modules	PDF.zip	PDF.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	EN_Diploma.pdf	Diploma paraugs_IDU0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Confirmation about possibility to continue studies.pdf	Vienošanās.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.	04000-2.2.1-e_20.edoc	04000-2.2.1-e_20.edoc
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	Study agreement sample_EN.pdf	Studiju līguma praugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Augstākās izglītības padomes atzinums.pdf	Augstākās izglītības padomes atzinums.pdf

# International Business Administration

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>International Business Administration</i>
Education classification code	<i>43345</i>
Type of the study programme	<i>Academic bachelor study programme</i>
Name of the study programme director	<i>Jānis</i>
Surname of the study programme director	<i>Grēviņš</i>
E-mail of the study programme director	<i>jgrevins@rbs.lv</i>
Title of the study programme director	<i>PhD</i>
Phone of the study programme director	<i>+371 67089800</i>
Goal of the study programme	<i>RBS's "Management in International Business" program (called "Bachelor of Business Administration in International Business, BBA) aims to prepare qualified business and institutional management experts to work in the international business environment. The purpose and objectives of the BBA program are in accordance with the requirements and recommendations of the Latvian and foreign labor market professional standard "Enterprise Manager", professional business school accreditation bodies (AACSB, EFMD, and CEEMAN), and RBS's vision and mission. The objectives of the Bachelor's study program "Management in International Business" describe the knowledge and skills that can be obtained in the learning process. In line with today's management training requirements, the program includes ethical, technological, information processing and synthesis, and strategic aspects.</i>
Tasks of the study programme	<i>The specific tasks of the academic Bachelor's study program are as follows: - to prepare experts for multinational companies and organizations that propose and define feasible business development options of operating principles for business companies and organizations; plan, coordinate and manage the performance of individual projects or business units. - to enable students to acquire core and specialized knowledge in the management sector, as well as to understand the key concepts and relationships that will prepare them to apply the acquired knowledge in the daily operations of the multinational business companies and institutions</i>

Results of the study programme	<p><i>The graduates of the study program will have acquired the core and specialized knowledge in the management science sector, as well as an understanding of key concepts and laws that will allow the application of the acquired knowledge in the day-to-day operations of the management experts in the multinational business companies and institutions.</i></p> <p><i>Based on the knowledge gained, the graduates will be able to analyze the international business and institutional expert problems, take responsibility and initiative doing the job individually, in a team or while managing other people, and make decisions and find creative solutions under changing or uncertain circumstances.</i></p>
Final examination upon the completion of the study programme	<i>Bachelor Thesis</i>

## Study programme forms

### Full time studies - 3 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>3</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>120</i>
Admission requirements (in English)	<i>General Secondary or Vocational Secondary Education / level of English language proficiency accordingly TOEFL PBT 523 (or equivalent result in tests TOEFL IBT or IELTS)</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Business Administration</i>
Qualification to be obtained (in english)	

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 3 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>3</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>120</i>
Admission requirements (in English)	<i>General Secondary Vocational Secondary Education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Business Administration</i>
Qualification to be obtained (in english)	<i>-</i>

### Places of implementation

Place name	City	Address
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Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050
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### III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)

#### 1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction

No changes have occurred.

#### 1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.

The total number of students in the program, since its beginning constitutes 407 students, which is a variable number due to the difference in the number of students matriculated and the ones who graduate. In autumn of 2018, 50 students were enrolled, out of which 2 (two) are foreign students (from Russia and Georgia). Figure 1 *"Students matriculated into BBA program and BBA graduates through August 31, 2019"* visually shows the dynamics of the program - the number of students enrolled and the number of graduates by year. The number of students enrolled between 2013 and 2019 shows a steady trend of 50 to 60 students - on average, 53 students per year. The steady trend in enrollment allows a smart study process planning, maintaining high-quality standards and adaptation to global market trends in education. Between 2013 and 2019, the number of graduates stayed steady at 30 and slightly above 40 per year.

In the school year of 2018/2019, the number of students in the program is 185. The figure 2 *"Number of BBA students"* shows the dynamics of the number of students by courses and years of study. The number of students in the program increases every year, which is to be seen as a positive step in the development of the program.

The figure 3 *"Breakdown of the BBA dropout students by dropout reason"* visually shows the number of the dropout students during the period in review, maintaining a steady trend of annual student dropout rate on average of 7 students per year, while in school year of 2017/2018 a total of 14 students dropped out, of which 10 students at their own will.

During the period in review, foreign students from different countries have been enrolled in the study program. Figure 4 *"BBA students from abroad"* depicts the statistics of the foreign students in the review period. 20 foreign countries are represented at the time. The largest number of students is from Russia; justification for this being Russia is a neighboring country and citizens of Russia have the opportunity of earning a diploma issued in the European Union. The second-largest number of students studying in the BBA program comes from Azerbaijan. Targeted student recruitment work is ongoing with student candidates in this country. In 2013, the largest number of foreign students was admitted, i.e. 9 students, compared with other years in the period under review. A relatively significant number of foreign students were also enrolled in 2015 and 2016,

when 7 students were enrolled each year. Also, in future review periods, RBS plans to continue recruiting foreign students in the BBA program. The 5th figure *"Countries represented by students in the BBA program"* shows the countries students are coming from to study in the RBS BBA program.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The Bachelor's study program "Management in International Businesses" is the result of RBS's international collaboration. The program was established with the support of the RBS partner institutions - the State University of New York at Buffalo, US and the BI Norwegian Business School (BI Norwegian Business School), Norway, making use of experience and academic potential of these universities. Partner institutions shall sign a certificate of completion of the RBS undergraduate studies (a sample is included in the 1<sup>st</sup> appendix for the *Academic Bachelor's study program "Management in International Business", certificate sample*), which the graduates of the program receive together with the diploma (a sample is attached in the 2<sup>nd</sup> appendix *Academic Bachelor's study program "Management in International Business", sample of diploma*). The quality and international visibility of RBS is evidenced by its place on the official list of the world's 1000 best business schools.

The academic Bachelor's study program complies with the national education standard - Cabinet Regulation No. 240 of May 13th, 2014, "Regulations Regarding the National Standards for Academic Education" <https://likumi.lv/ta/id/266187-noteikumi-par-valsts-akademiskas-izglitiba-standartu>. The compliance of the study program with the educational standard established by the State is reflected in detail in the 3<sup>rd</sup> appendix *"Compliance with the State Education Standard of the Academic Bachelor's study program "Management in International Business"*.

The knowledge necessary to carry out the core objectives of the academic Bachelor's study program is in accordance with the Protocol No 6 of the Tripartite Cooperation Sub-Council on Vocational Education and Employment agreed on at the meeting of September 18th, 2019, titled "Business Manager's Occupational Standard": <https://visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-115.pdf>.

The study program is intended to prepare professionals of international business and organizations who propose and define feasible business development options of operating principles for business companies and organizations and also plan, coordinate and manage the performance of individual projects or business units.

The 4<sup>th</sup> appendix titled *"The Academic Bachelor's study program's "Management in International Business" compliance with "Head of the Company" professional standards"* shows the relevance of the knowledge required to perform the core objectives of the study courses of the Bachelor program.

In order to achieve the objective, set by the Bachelor's study program - to prepare qualified business and institutional management professionals for work in the international business environment, a set of standardized and internationally recognized admission requirements has

been defined from the very beginning of the program. The admission requirements have not changed over time and have been recognized as qualitative criteria for student selection in order to achieve the study program's goals so that after successful completion of the program, the graduates would achieve the desired outcome. As in the times of modern globalization business and institutional management, professionals have to work effectively in a multinational environment, the program is delivered in English and the English language knowledge is one of the admissions requirements, in addition to centralized exams. An additional requirement is a selection interview that checks the potential student's competencies in topics relevant to the management profession. The candidate matriculation is based on the ranking determined by the weighted average score in Math, English and the selection interview. During the period from 2013 to 2019, no significant changes have been made in the admission requirements to the Bachelor's study program.

To successfully complete the program, it is necessary to earn 110 credits and write Bachelor's Thesis, worth 10 credits, within 3 years of study. Both, RBS and the partner schools, BI and UB, offer students electives in addition to the mandatory core subjects.

To successfully complete the classes, the students must meet the requirements described in the course description which include classwork, individual assignments, group work, and presentations, tests, mid-terms, and final examinations. To cover the course material, textbooks and case studies are used, which enable to analyze and solve real-life problems, both, in local and foreign companies. The content of the program courses is updated on a regular basis. Usually, a significant update takes place in the years when a newer issue of a textbook comes out. The development of the course is based on the development of course description and selection of teaching materials – books, articles, case studies, simulations, and other materials.

The Bachelor's program pays close attention to ensure that the study workload throughout the semester and between different elements of the study process is balanced. The final assessment of the student's knowledge consists of at least 4 components including group work and individual assignments. This course structure allows students to gain practical experience in solving problems and to learn to be a team player while defending their own point of view in discussions. The spectrum and balance of the knowledge transfer methods applied are well characterized by the multilateralism of the criteria to be assessed.

Given Latvia's integration into the global economic system and business globalization, and partner contracts with BI and UB, the program is taught in English. As a result, students also learn international business terminology.

The program places increasing emphasis on the use of the latest scientific publications and their electronic equivalents in the study process. At the end of the program, students have to develop a Bachelor's Thesis where the latest scientific knowledge should be applied in research and where students propose solutions to specific management challenges.

Bachelor's Thesis constitutes research on a specific management issue in a specific multinational company or institution. The thesis analyzes a situation the company is facing and proposes new solutions for further development. This approach enables students to familiarize themselves with the business and institutional management process

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**



**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The content of RBS's "Management in International Businesses" academic study program has been established based on the BBA (Bachelor of Business Administration) program adopted in Western Europe and North America, in particular through the BI and UB study program, as well as in compliance with the legislation of the Republic of Latvia, and is commonly compared to the requirements of the components of the AACSB Business and Management programs.

The specific program subjects and study plans are attached in the 5th appendix *"A study plan for the "Management of International Business" Academic Bachelor's study program"*. The program is based on a full-time schedule in the semester system. As a result, each subject lasts for 4 months, allowing full use of contact hours, as well as completing individual and group assignments between the lectures. The fundamental principle of effective learning in BBA programs is acquiring knowledge in a logical way, starting with the basic management subjects and ending with strategy courses.

Bachelor's study program's courses are regularly updated following industry demand, labor market needs and scientific trends. The course update takes place in different ways:

- the program courses are taught by guest lecturers who are professionals in a specific sector;
- updating the course content takes place in accordance with the model of the respective subjects in the partner schools, and also based on the course development trends in the world's leading universities;
- latest international teaching materials - both, textbooks and case studies and other materials are used;

The offer of the program study courses is gradually updated according to market trends and the partner school requirements. New courses have been developed and introduced in the program, taking into consideration the recommendations from the RBS Advisory Board and the feedback received from Latvian and international companies, RBS alumni and partner schools. As the program is new, relatively many new subjects were added to it from 2013 to 2019. Most of the newly proposed subjects are added to the program to meet the requirements for continuing studies in one of the partner universities. Overall, the restricted electives section includes 61% of the new subjects and 56% of new subjects are included in the free electives section. Figure 6 *"List of newly created courses in 2013-2019" of the Academic Bachelor's study program "Management in International Business"* shows newly created subjects in the Bachelor's program.

“Akadēmiskā bakalaura studiju programmas “Vadīšana starptautiskos uzņēmumos” jaunizveidoto kursu saraksts 2013.g.-2019.g.” / List of newly created courses in 2013-2019” of the Academic Bachelor’s study program “Management in International Business

Kods/ Code	Kursa nosaukums / Course Title	Grupa/ Category	Pamatojums mācību kursa izveidošanai / Justification for designing the course
		<b>B1</b>	
PBM741	Korporatīvā pārvaldība / Corporate Governance	B1	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM744	Starptautiskais bizness / International Business	B1	Kursu nepieciešams apgūt studiju turpināšanai UB un BI
PBM734	Cilvēkresursu vadība / Human Resources Management	B1	Kursu nepieciešams apgūt studiju turpināšanai UB
		<b>B2</b>	
PBM757	Pārdošanas vadība / Selling and Sales Management	B2	Studiju priekšmets izveidots, ņemot vērā jaunākās tendences darba tirgū
PBM743	Ražošana un procesi / Production and Operations	B1	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM735	Ievads psiholoģijā / Introductory Psychology	B2	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM733	Īdeju izpaušme rakstos / Advanced Written Expression	B2	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM750	Vispārīgā māksla / Art General	B2	Kursu nepieciešams apgūt studiju turpināšanai UB
		<b>C</b>	
PBM736	Investīciju vadība / Investment Management	C	Kursu nepieciešams apgūt studiju turpināšanai UB un BI
PBM737	Pasaules civilizācija I / World Civilization I	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM748	Dabaszinātņu kurss I / Natural Sciences I	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM747	Pasaules civilizācija II / World Civilization II	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM749	Dabaszinātņu kurss II / Natural Sciences II	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM753	Amerikas Savienoto valstu vēsture / US History	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM754	Finanšu matemātikas pamati / The Basics of Financial Mathematics	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM752	Intelektuālās īpašumtiesības / Intellectual Property	C	Kursu nepieciešams apgūt studiju turpināšanai UB
PBM756	Grāmatvedības pamatprincipi ASV / GAAP Course	C	Kursu nepieciešams apgūt studiju turpināšanai UB

To meet the international requirements of computer skills as part of the Computer Training course, Microsoft Word, Excel, and Access software training is provided to the students.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The fundamental principle of effective studying in the BBA programs is acquiring knowledge in a logical way, starting from the basic management subjects and ending with the strategy subjects. The second principle, characteristic mainly of the North American study programs, is the possibility for students themselves to choose which courses to take in each semester.

In RBS's Bachelor's program, students have the option of selecting when to take restricted and free elective courses.

In order to ensure a logical Bachelor program's study process, the RBS study portal has a functionality that allows the student to register only for those subjects they have completed prerequisites for.

The main procedures to ensure the quality and sustainability of the studies are as follows:

- the possibility for students to register independently for restricted and free elective courses in the portal (ORTUS);
- access to lecture materials for students in the RBS study portal;

- the availability of the latest learning materials and a system for assessing studies.

The objectives of the subjects/courses ensure a smooth coverage of the study program's goals, thereby providing the students with knowledge about current management science issues in the world. A detailed overview of the interlink between the objectives of the study courses and the objectives of the study program is annexed in the 6<sup>th</sup> appendix "*Mapping of study courses for the academic Bachelor's study program Management in International Business*"

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Considering the specific nature of a managerial position, which combines theoretical knowledge, practical skills, teamwork, presentation, and writing skills, the evaluation system assesses all or most of the aspects in the program courses. This ensures the balance and steadiness of the knowledge assessment, as well as teaches the basic principles of practical work. In order to ensure transparency and consistency of the requirements, each subject has a course description. A draft description of the course must be submitted by lecturers and it is available to students at the beginning of the registration for next semester's courses (approximately 2 months before the beginning of the semester). The RBS administration controls the explanation and justification of the requirements for each course.

Due to the increased use of case study methodology in the study process, the importance of attendance has increased too, as discussions and opinion exchanges are a part of teaching during lectures. The specific weight of the student's participation and group work in the assessment is determined by the course teacher in the course description. This kind of course structure allows students to gain practical knowledge in problem-solving during the study process and teaches them group work while defending their own positions during discussions. Taking into consideration program objectives - to prepare professionals for international companies and organizations who generate proposals and define possible business development strategies for businesses and organizations, plan, coordinate and monitor the work of individual projects or business units, group work plays a key role in the program where students need to develop presentations within team and need to be able to advocate their opinions.

To raise awareness of academic integrity and reduce cases of non-compliance, RBS has taken several steps during the period in review. First, all new students are introduced to the study manual, where academic integrity is explained. Secondly, all course descriptions have a reference to the academic integrity policy, and the RBS administration supports the policy of intolerance for academic violations. Thirdly, regular (1-per-week) teacher workgroup and student appointments are scheduled in the program development process, during which students present work they have accomplished so that instructors could provide immediate feedback on the progress of the student's work. Such a system promotes greater interaction between teachers/students and makes it quicker to detect and prevent academic integrity violations, including copyright infringements.

Taking into consideration Latvia's integration into the global economic system and business globalization, the program is taught in English. As a result, students also learn international

business terminology.

In RBS, interactive teaching methods are applied to teaching all courses. Faculty are encouraged to apply group work, presentations and other methods to make the learning process more interesting and efficient. RBS's study methods include a serious focus on case studies and projects. About 40% of the final course grade student receives from work on group projects and their presentation.

During studies, students develop, prepare and present a variety of projects, including individual projects, group projects, case studies, and bachelor's Thesis. Individual and group projects are developed within the framework of separate courses and the requirements students need to meet are described in the course descriptions. The projects provide for the submission of written reports. The final group projects are usually presented to an audience for which students receive an assessment from both, the audience and the instructor.

In RBS the study process is organized in the form of theoretical lectures, homework, course project presentations, practice sessions, seminars, case studies, tests, mid-terms, and final exams. Emphasis is placed on a balanced study workload, both throughout the semester and among different elements of the study process.

In the review period, RBS continues to support the academic violations' intolerance policy and observes the measures taken previously. Accordingly, all new students are informed about the code of ethics. In addition, all course descriptions and documents published in the information support system ORTUS, contain information about scholastic honesty. During this review period, and RBS Scholastic Honesty Committee has been set up, with students and academic staff participating in the principle of parity. The purpose of this Committee is to decide on scholastic honesty violations and sanctions that need to be applied, as well as on the strategy and plan to promote academic honesty in RBS. Similarly, as in course subjects, the bachelor's Thesis has precise guidelines designed to accurately define the requirements of the bachelor's Thesis and to minimize the subjectivity of the grade.

The assessment system of the Bachelor's study program complies with the assessment practices applied by the leading world business schools, which are compatible with the Latvian legislative requirements, and are based on the following principles:

- assessment mandatoriness: the need to obtain a passing assessment for each course of study;
- assessment balance and steadiness – the outcome of students' work is assessed throughout the semester, using different types of testing methods;
- transparency and consistency of the requirements: at the beginning of each course, students are informed about the content, requirements, and assessment for it;
- academic integrity: Students are required to comply with the requirements of scholastic honesty providing for penalties for violations.
- the connection of the assessment to labor market requirements: the assessment system used by RBS meets the criteria for the success of the graduates in the managerial positions.

The BBA program uses a grading system approved in the Republic of Latvia. The grade below 4 is failing. Mandatory courses with failing grades must be retaken. Taking into consideration the international grading practices in the BBA programs, the minimum GPA for continuing studies in one of the partner schools must be equal to or greater than seven. This principle is directly aligned with the specific nature of management work, where good results can only be achieved in implementing all aspects of management in a balanced and qualitative way.

The organization of RBS's Bachelor's study program "Management in International Businesses" is carried out in accordance with internationally accepted program management practices and the

regulatory documents of Latvia, RTU, and RBS. The program's day-to-day academic and organizational management is provided by RBS, its director and the director of the program. The program's record-keeping is carried out by the RBS Administration in cooperation with the RTU Academic department.

Formally, the relationship between the RTU and the student is governed by the study contract and study rules. Taking into consideration the international scope of the program, the program director exchanges information on the implementation of the program with partner schools BI and UB on a regular basis, coordinating the academic and student engagement, as well as information dissemination and target market information. The RBS management team meets regularly with the management of student self-government bodies to discuss current student life issues and development plans for cooperation. Representatives of the student self-government body also participate in the work of the RBS Board, where the decisions are made about the study process in RBS.

In addition to regular academic studies, the students are required to participate in several activities, reflected in Figure 7 “*Student extracurricular activities plan*”, which focuses on:

- developing and exploiting the creative capacity of the students to address societal challenges;
- promoting students’ motivation and personal development;
- students’ understanding of the activities and tasks of different forms of organizations in society;
- promoting students' awareness of social responsibility;
- practical application of knowledge acquired when analyzing case studies.

7.attēls/Figure 7

Studentu ārpusmācību aktivitāšu plāns/  
Student extracurricular activities plan

		1. gads/ 1st year			2. gads/ 2nd year			3. gads/ 3rd year	
		Rudens/ Fall	Pavasaris/ Spring	Vasara/ Summer	Rudens/ Fall	Pavasaris/ Spring	Vasara/ Summer	Rudens/ Fall	Pavasaris/ Spring
Komandas saliedēšanas/orientācijas nometne / Team building / orientation camp	X								
Uzņēmējdarbības un līderības koncepts / The concept of entrepreneurship and leadership		X	X		X	X		X	X
Prakses / Internship				X			X		
Programmas direktora konsultācijas / Recommendations of the program director									
Individuālas līderības konsultācijas / Individual leadership consultations		X	X		X	X		X	X
StartUp Lab/ StartUp Lab		X	X		X	X		X	X

These activities expand student horizons and help them to better prepare for the labor market (see detailed description of the options in the Bachelor’s study program Manual):

- the team consolation/orientation camp is organized in cooperation with one of the Latvian municipalities and takes place before the beginning of studies. As part of the camp, the local government presents its work as well as offers students to choose one of the projects in the region for in-depth research and preparation of development proposals. After the camp, students continue to work on these tasks within the framework of the StartUp Lab;
- the concept of entrepreneurship and leadership: students have access to a mentor and systematic mentorship throughout the program;
- internship: in cooperation with the RBS alumni, there is an opportunity for students to have

internships in different companies during summer. Internship contracts are signed with employers (see appendix);

- individual leadership advice - consultation with the program manager and program teachers to develop individual leadership skills.
- consultation with the director of the program - individual meetings with each student every semester in order to discuss their progress in the acquisition of the program and to assess the goals and objectives of further study and career development;
- StartUp Lab - in cooperation with the RBS Alumni Association and Latvian municipalities, the Club for the Development of Students' New Ideas, Innovation, and Entrepreneurship.

Similar to the Master's programs, RBS's quality system, coordinated with the RTU and partner school quality system requirements, is implemented in the Bachelor's program.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Bachelor's Thesis is a mandatory component for completion of the academic Bachelor studies program at RBS.

The objectives of developing a Bachelor's Thesis are:

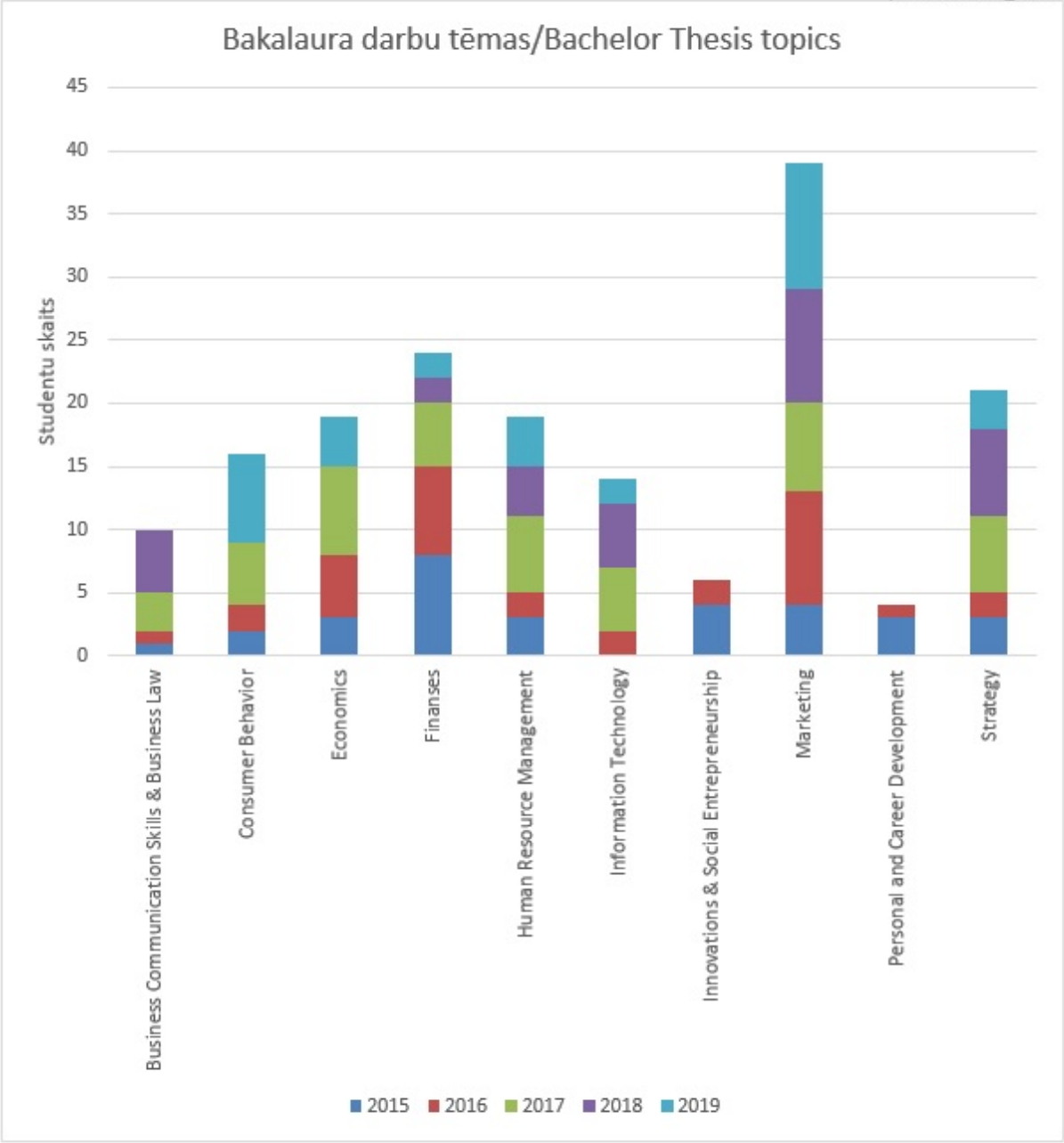
- demonstrate the ability to apply the concepts, methods and analytical skills acquired in the course of the program within the specific topic selected by the student;
- demonstrate the ability to identify and find solutions to business management problems;
- demonstrate the ability to develop and publicly defend Bachelor's Thesis in a systematic and structured way.

To write a high-quality Bachelor's Thesis, guidelines available to the students have been developed, as well as the Bachelor's Theses deadlines have been set. The Bachelor's Thesis Guidelines describe the approach, format, assessment, process of writing and defending the thesis, deadlines, privacy, plagiarism, layout, and sample template.

During the period in review from 2015-2019, on average, the students have produced and defended about 32 Bachelor's Thesis yearly, except 2017, when 44 Bachelor's Thesis was defended. The topics of the Thesis vary every year, but most of Bachelor's Thesis defended each year are about Marketing themes that may be topical in the employer market. The figure 8 "*Bachelor's Thesis Topics*" reflects the topics of Bachelor's Thesis during the period in review. As the second most common topic for Bachelor's Thesis students choose Finance-related subjects and the third is Corporate Strategies. The topics of the Thesis produced by students continue to play an important

role in the management sector and labor market.

8.attēls/Figure 8



The final grade of the Bachelor’s Thesis comes from the assessment given by the Defense Commission, Thesis advisor, and the reviewer. The following is taken into account when assessing Bachelor’s Thesis: the importance of the business idea, theoretical justification and the overview of the literature, conclusions, recommendations, the connection of conclusions to the theory and analysis, answers to questions, visual design and confidence of the presentation. Figure 9 “Bachelor’s Thesis Final Performance Assessment Development Scheme” shows the “formula” for the Bachelor’s Thesis final assessment.

*Bakalaura darba gala novērtējuma veidošanās shēma/ Bachelor's Thesis Final Performance Assessment Development Scheme*

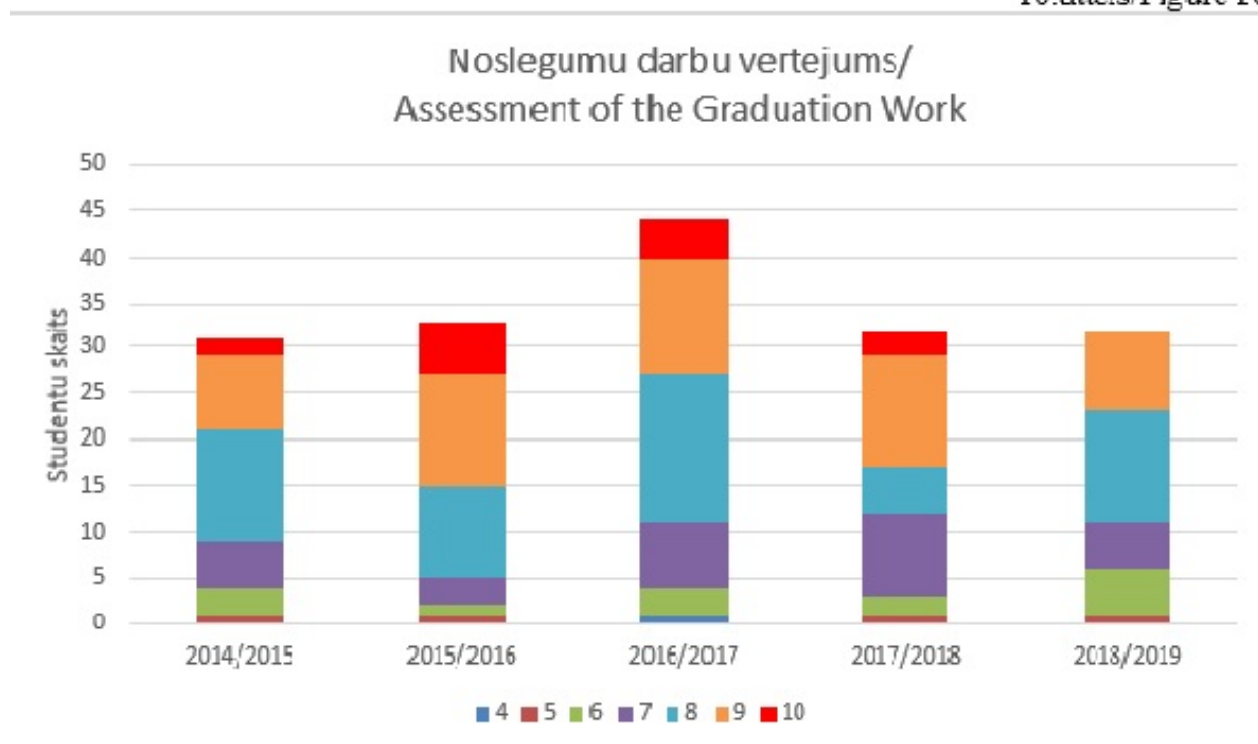
RQ Statment and business importance/ RQ apgalvojums un biznesa nozīmīgums	Theoretical background /literature review / Teorētiskais pamatojums / literatūras apskats	Empirical Findings/ empiriskie secinājumi	Recommendations and Conclusions/ ieteikumi un secinājumi	Results and findings clearly tied with theory/analysis/ Rezultāti un secinājumi ir skaidri saistīti ar teoriju / analīzi	Answers to questions/ atbildes uz jautājumiem	Presentation/ prezentācija		Final Mark of Thesis committee member/ Bakalaura darba komisijas locekļa gala atzīme
						visual aspects/ vizuālais novērtējums	persuasiveness and clarity of presenting/ prezentēšanas pārliecīgība un skaidrība	
15%	10%	20%	15%	10%	15%	5%	10%	

Final Committee mark / kopējā bakalaura darba aizstāvēšanas komisijas atzīme	Supervisor's mark / bakalaura darba vadītāja atzīme	Referee's mark / bakalaura darba recenzenta atzīme	Final mark / Bakalaura darba gala atzīme
30%	30%	40%	

Figure 10 "Assessment of the Graduation Work" shows the assessment of the graduation thesis of the RBS Bachelor's study program for the review period of 2015-2019. The summary shows that the lowest score of 4 points (almost mediocre) was given to one student, i.e. 0.6% out of the total number of students. On the other hand, the score of at least 7 (good) and above and up to 10 (excellent) is given to at least 80% of the students each year. It can be concluded that students in the Bachelor's program have obtained quality education, which is reflected in the development and presentation of the final Thesis.





**2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

One of the core elements of the quality assurance of the studies are the course evaluation feedback system used by RBS. In each of the subjects, in the fifth and sixth sessions, students need to complete a mid-term evaluation form, a model of which is attached in the 8<sup>th</sup> appendix, in order to help lecturers to improve the course content. Immediately after completing course evaluations, the evaluation forms are compiled electronically, and the academic director presents the results of the mid-term evaluations to the respective lecturers. Mid-term course evaluations give an opportunity to identify any possible improvements necessary in a timely manner.



## Early Course and Instructor Evaluation

Course Title: \_\_\_\_\_

Instructor: \_\_\_\_\_ Date: \_\_\_\_\_

EXAMPLE	IMPORTANT DIRECTIONS FOR MARKING ANSWERS	
<p><b>RIGHT</b></p> <p>(A) (B) (C) (D) (E)</p> <p><b>WRONG</b></p> <p>(A) (B) (C) (D) (E)</p> <p>(A) (B) (C) (D) (E)</p> <p>(A) (B) (C) (D) (E)</p>	<ul style="list-style-type: none"> <li>• Use #2 pencil only</li> <li>• Do NOT use ink or ballpoint pens</li> <li>• Make heavy black marks that fill the circle completely</li> <li>• Erase cleanly any answer you wish to change</li> <li>• Make no stray marks on the answer sheet</li> </ul>	<p><i>This form will be processed electronically, please make sure that you fill in the box completely and thoroughly erase completely errors or stray marks.</i></p>

Your responses are an important source of information about the quality of instruction you are receiving. This information will help the School to evaluate the instructor's teaching effectiveness. Please, answer each item thoughtfully and honestly. Your instructor will not receive the final results of this survey until the final grades have been submitted.

	Not satisfied	Satisfied	OK	Good	Excellent
Your gained knowledge	①	②	③	④	⑤
Course materials (i.e text books, PPT presentations, cases, etc.)	①	②	③	④	⑤
The instructor	①	②	③	④	⑤

Please explain a mark of 1 or 2:

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1. What did you like most about this course?

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2 What would you like to change in the course and why?

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3. Please write other comments or suggestions on how the instructor can improve any aspect of the course

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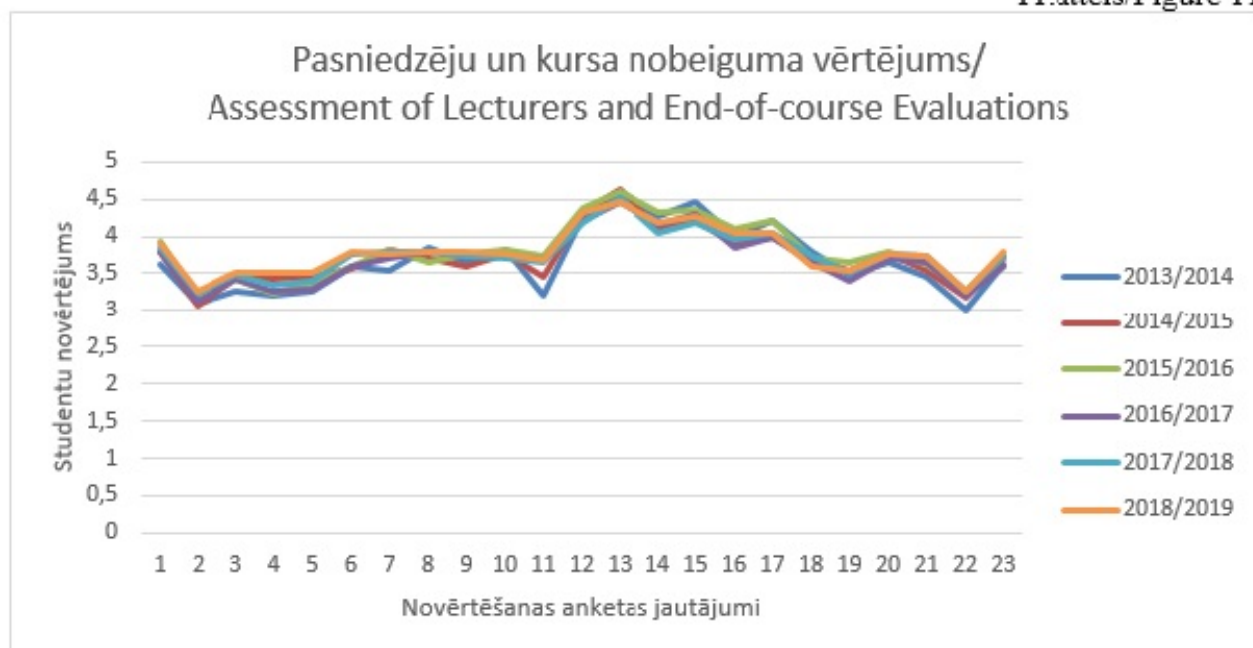


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At the end of the course, students must complete a comprehensive evaluation form, thereby expressing their views on the quality of presentation of the subject. When analyzing the results of the final course evaluations, which are reflected in figure 11 "Assessment of Lecturers and End-of-course Evaluations", it can be observed that the dynamics of the evaluations are similar by semesters. This leads to the conclusion that the quality system used provides consistent teaching quality. The final evaluation forms for the lecturers and courses of the Bachelor's study program are shown in the 9<sup>th</sup> appendix.





### Course and Instructor Survey

Your responses are an important source of information about the quality of instruction you are receiving. This information will help the School to evaluate the instructor's teaching effectiveness. Please, answer each item thoughtfully and honestly. Your instructor will not receive the final results of this survey until the final grades have been submitted.

Course Title \_\_\_\_\_

Instructor: \_\_\_\_\_ Date \_\_\_\_\_

***This form will be processed electronically, please make sure that you fill in the box completely and thoroughly erase completely errors or stray marks.***

! <input type="checkbox"/> - Correct	<input checked="" type="checkbox"/> - Not correct	<input type="checkbox"/> - Not correct <input checked="" type="checkbox"/> - Not correct !
--------------------------------------	---	--

1. How did the course meet your needs?  
(not at all) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very well)
  2. Proportions of theory and practical applications.  
(too theoretical) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (too practical)
  3. How would you judge the pace of the course?  
(too slow) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very fast)
  4. The workload for this course is:  
(too light) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very heavy)
  5. The difficulty level of the course activities and materials is:  
(extremely easy) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (extremely difficult)
  6. How well the course syllabus provided by the instructor helped you to understand the goals and expeditions of the course?  
(very poorly) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very well)
  7. Rate the usefulness of the outside assignments (case analysis, home assignments, and special projects) in helping you to learn more:  
(almost useless) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (extremely useful)
- How could you rate the grading and assignments?**
8. (unclear standards) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (clear grading standards)
  9. (tested insignificant details) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (tested critical material)
  10. (no feedback) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (useful feedback)
  11. Usage of visual/audio/video aids:  
(not at all) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (effectively)

**The instructor is:**

12. (unenthusiastic) ☐1 ☐2 ☐3 ☐4 ☐5 (enthusiastic)
13. (uninformed) ☐1 ☐2 ☐3 ☐4 ☐5 (knowledgeable)
14. (inflexible) ☐1 ☐2 ☐3 ☐4 ☐5 (flexible)
15. (intolerant) ☐1 ☐2 ☐3 ☐4 ☐5 (tolerant)
16. Skillful in promoting class/group discussions  
(never) ☐1 ☐2 ☐3 ☐4 ☐5 (always)
17. (avoids discussion) ☐1 ☐2 ☐3 ☐4 ☐5 (encourages discussion)

**Were the lecturers and presentations:**

18. (hard to follow) ☐1 ☐2 ☐3 ☐4 ☐5 (easy to understand)
19. (boring) ☐1 ☐2 ☐3 ☐4 ☐5 (stimulating)
20. (wastes time on insignificant issues) ☐1 ☐2 ☐3 ☐4 ☐5 (stresses important material)

**The textbook and readings used are:**

21. (not relevant) ☐1 ☐2 ☐3 ☐4 ☐5 (relevant)
22. (boring) ☐1 ☐2 ☐3 ☐4 ☐5 (stimulating)
23. Overall, how much do you feel you have learned in this course?  
(very little) ☐1 ☐2 ☐3 ☐4 ☐5 (a lot)

24. Circle the number that best describes your opinion according to the criteria below:

	Not satisfied	Satisfied	OK	Good	Excellent
Your gained knowledge	1	2	3	4	5
Course materials (i.e PPT presentations, cases, etc.)	1	2	3	4	5
The instructor	1	2	3	4	5

**PLEASE USE BLOCK LETTERS!!!**

25. What do you like most about this course?

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26. What would you like to change in the course and why?

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27. Please write other comments or suggestions on how the instructor can improve any aspect of the course

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Thank you for your comments. They will be summarized and given to the instructor and she/he will use them to plan the next course.

During the study process, students are involved in the evaluation and analysis of the study results. Throughout the course, instructors will receive student feedback and reviews about the quality of teaching, satisfaction with lectures and practical assignments, study material availability and usability, quality and quantity of learning requirements, and the effectiveness of each lecturer's teaching style.

The students are elected to the RBS Council, which allows them to engage in the administrative process of their studies and represent the interests of the students.

In the operation of RTU Riga Business School and its results - in the graduates of the Bachelor's program, who can participate in promoting balanced and sustainable economic growth in Latvia, the interested parties are students, graduates, employers, and the whole Latvian society. Therefore, in this review period, RBS has focused on establishing strategic partnerships that would

allow the best representation and fulfillment of the common interests of these groups. Among RBS's cooperation partners are the Latvian Ministry of Foreign Affairs, the US Embassy in Latvia, the American Chamber of Commerce in Latvia, the British Chamber of Commerce in Latvia, the Norwegian Chamber of Commerce in Latvia, the Latvian Investment and Development Agency, IT Cluster, Latvian Employers' Confederation, Latvian Chamber of Commerce and Industry, Latvian Personnel Management Association, Latvian Quality Management Association, and Riga Business School Alumni Association.

The RBS Alumni Association plays a big role in attracting graduates and aims at promoting the visibility of RBS's brand and its Bachelor's programs, contacts among the alumni, students and the school, and maintains relationships with other associations and public organizations. During the period in review, the RBS Alumni Association has continued its activities by organizing lectures, seminars and company visits with the participation of both, the alumni and the students.

The visits are planned and organized in cooperation with RBS graduates working in these companies. The activities foster an environment in which an intensive exchange of ideas takes place and business contacts are made. Events organized by the RBS Alumni Association – such as business events (seminars, lectures and company visits), social gatherings (boat trips, sports events and “homecoming” events) are, at the same time, a source of income for the Association, as their costs are covered by membership fees.

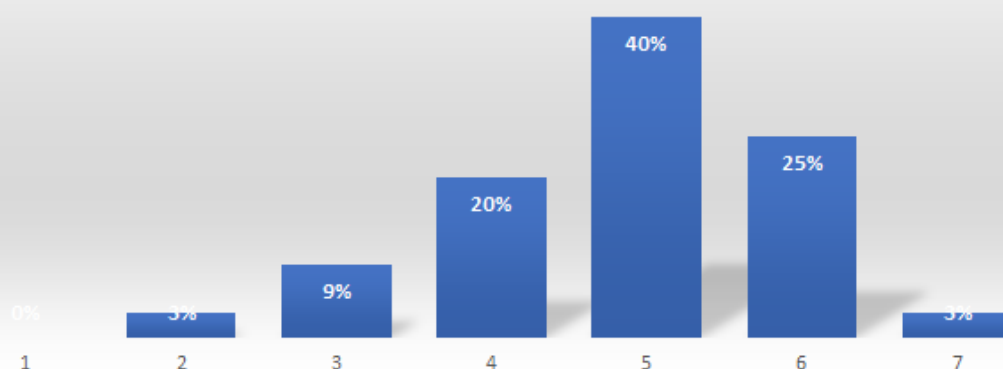
For example, a business dinner is organized annually, aimed at connecting new, innovative future leaders, entrepreneurs with experienced leaders from different social and age groups, as well as expanding the network and business environment in Latvia.

Also, in 2018 RBS organized a training course in Innovation and Business, taken by both, RBS Bachelor's program and Buffalo students. As part of the study course, students learned about conditions of the Baltic market and visited various companies in Latvia, Estonia and Lithuania.

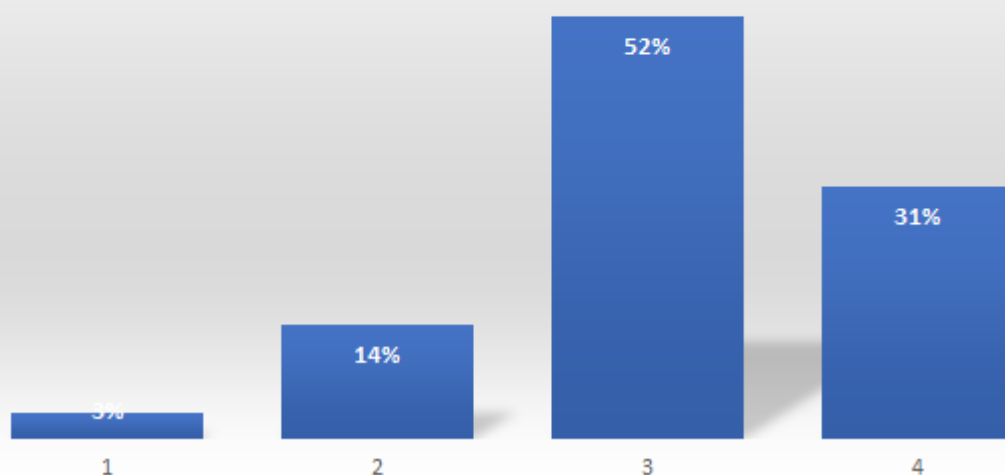
Considering the program evaluation by the graduates and the recommendations of students during the study program, the Bachelor's study program is constantly reviewed and refined. The feedback questionnaire addresses the content of the study program, practical experience, acquired knowledge, facilities and employment information. When evaluating the answers, the content of the study program is expanded, and new elective courses are selected.

In spring of 2018, a general survey of the Bachelor's program graduates was organized. Graduates from the first three years of the program - 2015, 2016 and 2017 participated. The results of the survey give information on how the study program has prepared the graduates for their future careers, their employment status, work functions, industry and position, and on whether graduates are recommending the program for potential students. In analyzing survey results, it should be noted that graduates are generally satisfied with 68% of the knowledge acquired during the study program and they would be ready to recommend the study program to the other 83%.

Cik labi RBS sagatavo karjeras uzsākšanai/  
How well did RBS prepare for starting your career  
1 (not well) - 7 (extremely well)

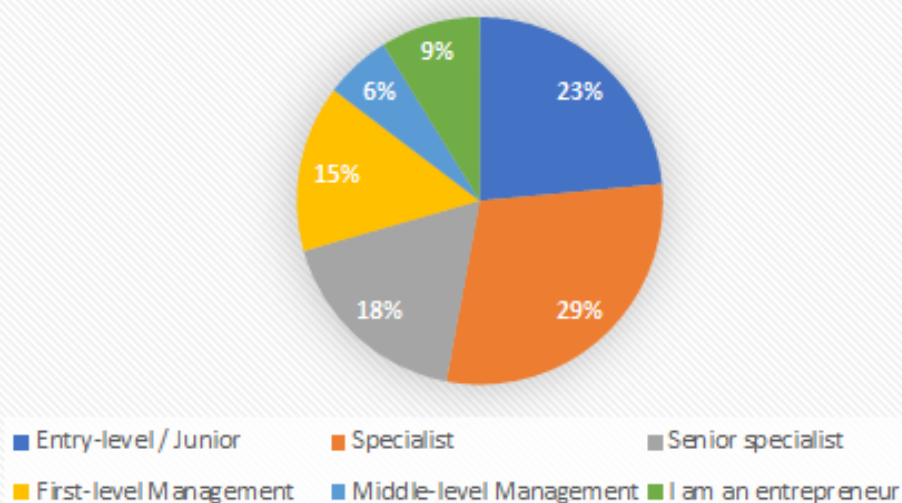


Iespējamība RBS rekomendēšanai /  
Likelihood of recommending RBS  
1 (Definitely NO) - 4 (Definitely YES)



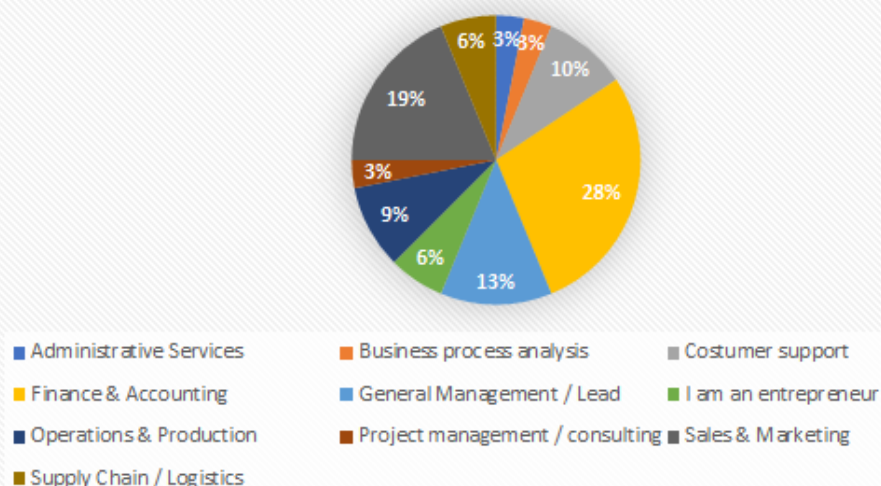
The most graduates - at 70% take-up junior to senior managerial positions after graduation. There are also graduates who hold leadership-level positions, they are at 21%, and 9% of graduates are trying to build their own business.

## Absolventu ieņemtais amats/ Alumni job position



Duties of graduates in the their workplace are different, but mostly - 28% of graduates who participated in the survey fulfill finance-related duties, while 19% of graduates who participated in the survey perform marketing-related or salesrelated duties.

## Absolventu pienākumu funkcijas darba vietā / Alumni responsibilities functions at office



After graduation, the salary of graduates is no less than 800 EUR with the majority making up to 1500 EUR (73% of the graduates). There are also graduates with a salary of more than 2000 EUR. It is planned to perform this type of alumni survey in the following review periods as well.

Taking into consideration the ratings and recommendations by the graduates, the administration has introduced the following changes: a joint course with University at Buffalo has been introduced; the number of foreign guest lecturers has been increased and a mentoring program has been started with participation of graduates which produced the first 12 pairs of mentors in January of 2018.

Specific examples as improved the study program using surveys of students, graduates and employers.



Suggested by employers:

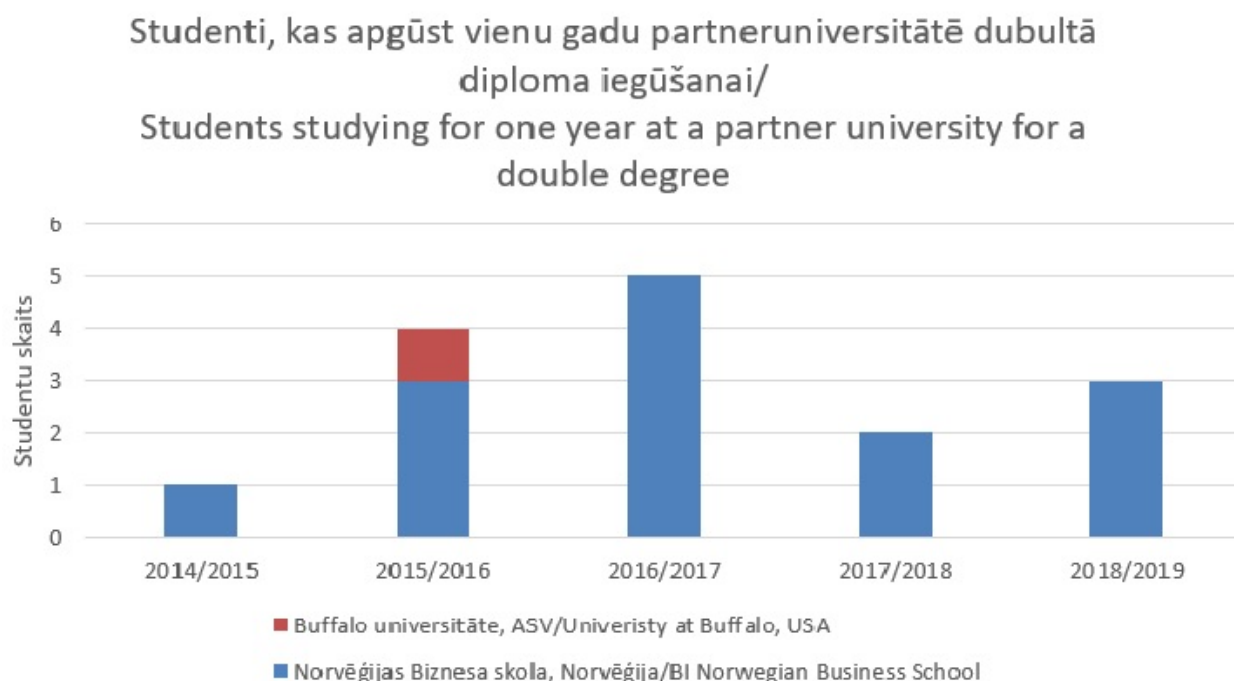
- R Programming: based on employers' feedback, R programming training is incorporated as compulsory content;
- Social Entrepreneurship course is implemented together with LSA and Ernst&Young;
- For the bachelor theses process, companies prepares research topics for students;
- In the study process is incorporated the First Year Seminar where students work together with one municipality in the solution of one program;
- Is increased the number of courses connected with Finance and Accounting like Investment Management and The Basics of Financial Mathematics.

Suggested by students:

- Is created the RBS Mentorship Program;
- First year students has additional mathematics tutoring;
- In the program is incorporated more elements of project management and entrepreneurship;
- Career Coaching course is incorporated to support the career possibilities and readiness for the job market of our students;
- Students are fully running the orientation week where is hosted a team-building camp.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

While studying at RBS Bachelor's program, it is possible to obtain a double degree by studying at one of RBS's partner schools in Norway or the United States for one year. If a student chooses to obtain the Norwegian Business School diploma, the student has to study two years in RBS's Bachelor's program and one year at the Norwegian Business School, but if the student chooses to obtain The Buffalo University degree - they need to study three years in RBS's Bachelor's program and one year at Buffalo University. Among students, a more popular choice is to go to Norwegian Business School in Norway, and this choice is understandable because the partner school is relatively close in comparison to Buffalo University in the USA. This opportunity is used by a couple of RBS Bachelor's program students each year. Meanwhile, the opportunity to go to study at Buffalo University has so far been used by only one RBS Bachelor student. The figure 12 *"Students studying one year to earn a double diploma in partner university"* shows the number of students who have earned double diplomas during the review period from 2013 to 2019, studying for one year outside Latvia. Overall, seventeen students have received double diplomas since the successful commencement of the Bachelor's study program.



Students in the Bachelor's program also can participate in Erasmus + Internship mobility program. Three students have used this opportunity so far:

- in 2016, one student visiting Spain for "Eventos Y Recursos Empresariales SL"
- in 2017, one student visiting Spain for Buzzyworld,
- in 2018, one student visiting Malta, Sol Networks Limited.

As part of the Bachelor's program, in summer 2017, students at Buffalo University had the opportunity to participate in a study course organized by RBS with a goal to deepen students' knowledge of the international business environment by placing a special emphasis on the Baltic States. The course was attended by 16 students, 7 of whom were students from Buffalo University and 9 students from RBS. The course included five remote pre-training lessons, which were complemented by two-week seminars held in the Baltic States - Riga, Tallinn, and Vilnius, exploring various production and service businesses, and learning about successful aspects of business formation, development, management, and financing.

### III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

RBS premises in Riga, Skolas Street 11 are used to ensure the studies and they are equipped with the latest teaching technology. Overall, for the purposes of the study process, one large auditorium with a capacity of up to 98 people is available, four average auditoriums with a capacity of 45... 57 people, seven small classrooms with a capacity of 12... 35 people are available. Auditoriums/classrooms are equipped with stationary computers for lecturers, multimedia projectors, audio and video equipment, and other presentation devices. The whole building has a wireless network. One of the classrooms is equipped with an automatic lecture recording system. The technical equipment is fully compliant with the requirements of modern auditoriums and meets the best Latvian and foreign counterparts. There is a specialized library and a computer lab for the needs of students.

For intensification of the study process during the review period, continuous access to the "ORTUS" – the RTU joint study support system is provided. At this point, "ORTUS" provides the following services to students:

- uploading lecture handouts and presentations;
- access to documentation governing the study process and its changes;
- lecturers' CVs
- the remote authorization for students to access commercial electronic means of information (Databases);
- information about a student's performance;
- information on the student's financial status, with the possibility of electronic invoicing;
- registration/withdrawal in real-time for the next semester.

In addition to these services, "ORTUS" provides a teacher-student communication platform within the study course, electronic processing of quizzes and homework and other contemporary study services.

To ensure the study process, RBS has established cooperation with international publishing houses, business case study distributors and electronic database providers to ensure that RBS students have access to the latest teaching materials. In cooperation with international publishing houses, RBS students have access and they must use the latest editions of textbooks in all the subjects. In order to provide RBS students with case study materials, RBS collaborates with ECCH (European Case Clearing House) and Harvard Business Publishing (HBS). Thanks to active and professional use of business case study materials in the RBS study process, according to the signed agreement with the HBS publishing company on the access of the teaching materials and related teaching manuals, it continued to operate, which allowed a wider range of case studies to be obtained thus reducing the cost.

Intense work has been done during the review period to give RBS students access to the electronic resources needed in the management study process. During the reporting period, RBS students and lecturers are provided with access to EBSCO, SpringerLink, IEEE, Web of Science, ProQuest, Science Direct, SCOPUS, ACM Digital Library, MERLOT, Latvian Standards Database, IMF Library, Leta Full Text Database and Reference Database Letonika. As well, students are provided with the search engine PRIMO. PRIMO enables simultaneous searching of subscribed and open access databases, the general library catalog and databases created by the RTU Scientific Library.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

#### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

During the review period, no significant changes have been made to the teaching staff. Of the 45 subjects included in the study program, teaching staff changes have occurred in 8 compulsory subjects, 2 restricted elective courses, and 3 free-choice elective courses, representing 29% of the total number of the study courses. Most of the teaching staff changes have occurred due to the changes in lecturers' professional circumstances or due to the political differences the lecturer may have had about the study program. Mainly, changes have occurred in the following subjects: Marketing, Accounting and Financial Management, Entrepreneurship, Business Strategy and IT.

Changes from Part A and Part B courses have taken place in the following study courses:

- Milad Asdaghi, M.sc., who is at the same time the director of Breakwell Group, is engaged in the Marketing Management and Consumer Behavior study courses. Milad Asdaghi is a graduate of the MBA program at RBS.
- Lecturer Justin Bancroft, who is also a Lattelecom Supervisory Board member, Certified Accountant, and a certified internal auditor, is a lecturer in the "Management Accounting" and "Financial Reporting and Analysis" and "Managerial Accounting and Control" and "GAAP course" courses. Currently, Justin Bancroft acts as an independent financial and corporate governance consultant.
- Kārlis Ātrens, a lecturer involved in the study course "The Firm" works at Konekesko Latvia as IT manager at Baltic States and has long-term professional experience in IT.
- Kristine Sevcenko, a lecturer in Mathematics, has a higher education degree in mathematics and has linked all her professional experience to the teaching profession of mathematics.
- Study course "Strategy" involves a lecturer Inga Jakobsone, with extensive professional experience as a director, providing leadership, coordination and direction to integrate Baltic operations into company business in Europe. Inga Jakobsone has an MBA from RBS and a PhD from BA School of Business and Finance
- Randev Dias, a lecturer in Computers for managers, has gained international experience as a business professional specializing in IT, project management and strategy.
- Kaspars Senvalds, a financial director at NCH Advisors Inc., with extensive experience in the financial field, is engaged in the course "Financial Decision Making".
- Raimonds Lieksnis, a financial director of SIA Tilde, with a long-term experience in the field of finance, is involved in the study course "Investment Management".
- Andrejs Koliskins, a professor at RTU, director of the Institute of Applied Mathematics, senior researcher at the Institute of Applied Mathematics, a visiting lecturer at the Hong Kong University of Science and Technology, has been involved in the study course "The Basics of Financial Management" process management.

The faculty recruitment is based on the strategy that RBS is primarily a “teaching institution”, which means paying attention not only to the candidate's professional/research experience but also to their teaching skills in the North American-style programs. Thus, it is ensured that the faculty not only follow the latest tendencies occurring in their subjects but also are able to provide effective teaching methods for students to acquire knowledge.

Changes in the teaching staff during the reporting period are to be considered positive, as the professional experience of the lecturers is an invaluable contribution to the study program. Students gain both theoretical knowledge and practical experience, which students value as particularly high added value in the study process. The study program follows and checks that changes in the teaching staff have a positive impact on the study process.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The teaching staff involved in the implementation of the study program meets the qualification requirements and the requirements of the regulatory enactments, as well as ensures the achievement of study course objectives and study results. RTU elected lecturers, field specialists and guest lecturers participate in the implementation of the program.

RBS mainly offers part-time positions for the lecturers. However, RBS believes that lecturers who teach the program’s core courses should nevertheless be employed on a full-time basis. Following these principles, RBS has managed to bring together over 32 lecturers during the review period, both, with academic and professional experience, and in line with the needs and direction of the study program. The information on the lecturers with their academic and professional qualifications is reflected in figure 13 “Breakdown of teacher qualifications and levels of participation based on the work-load”.

13.attēls/Figure13

**Pasniedzēju kvalifikācijas un līdzdalības līmeņa sadalījums, pamatojoties uz pasniedzēju mācību priekšmetu noslodzi/ Breakdown of teacher qualifications and levels of participation based on the work-load**

	Iesāstītie pasniedzēji	Atbalstošie pasniedzēji
Akadēmiski kvalificēti (pasniedzēji ar doktora grādu vai doktorantūrā studējošie)	25%	25%
Profesionāli kvalificēti (pasniedzēji ar nozīmīgu vadības pieredzi)	12%	38%

To put it accurately, RBS, in this study program, is looking for lecturers who possess the following qualifications:

- the balance between theoretical and professional knowledge in the field of teaching;
- pedagogical knowledge of modern teaching methods;
- a general understanding of other areas of management outside the area of direct competence of the teacher;
- the ability to provide training in English;
- continuous development of specialized and pedagogical knowledge.

RBS also has the option of getting professional advice from the partner universities in recruiting lecturers.

The main lecturers involved in the study program are as follows:

- Jānis Grēviņš, Dr.phil., RBS Director and Director of Study Programs, holds a Ph.D. from Buffalo University. Long-term experience in education: study process management, administrative management, IT process management, international project management, etc. In addition to working at RBS, he is a member of Lattelecom's Supervisory Board. At RBS is responsible for the following IT, Manufacturing and Service Management study courses, as well as internships and Master's theses.
- Andrejs Koliškins, Dr.math., Professor at RTU, director of the Institute of Applied Mathematics, senior researcher at the Institute of Applied Mathematics, guest lecturer at Hong Kong University of Science and Technology. Long-term experience in the field of education: both as an academic lecturer and in the management of the study process. His research interests include the study of stability problems in hydraulics and fluid mechanics with applications to open channel flows and transient flows in hydraulic systems, mathematical methods for heat and mass transfer problems, mathematical models for eddy current test problems, and statistical business applications. Andrejs Koliškins has an extensive list of academic publications. Andrejs Koliškins is also a member of the RBS Council. RBS is responsible for the following courses in mathematics and statistics.
- Claudio Rivera, Dr.sc., the Head of Study Program and Docent at RBS. Claudio grew up in Argentina but has been in Latvia since 2004. Most of his career has been devoted to consulting, training and researching leadership and organizational behavior at companies and organizations such as Elevator International, School of Business Administration Turiba, Stockholm School of Economics in Riga, Euromonitor International, Cisco Networking Academy and IAE. Claudio has extensive experience in consulting in the IT, NGO and HR sectors. He teaches English, Spanish and Latvian and has trained people in over 10 countries and over 30 nationalities. Claudio has been appointed FEN (Poland) guest lecturer in Leadership and Human Resources courses in collaboration with IESE ([www.iese.edu](http://www.iese.edu)), one of the best business schools in Europe. As a researcher, he has published several journals and conference proceedings, and participated in several international research projects. In general, Claudio is widely involved in vocational and higher education. RBS is responsible for courses in Personnel, Leadership, Communication and Psychology.
- Raimonds Lieksnis, Dr.phil., Docent at RBS. Raimonds Lieksnis holds an MBA from the University of Buffalo, USA. Raimonds Lieksnis currently holds the position of Chief Financial Officer of TVG Ltd., where he develops the company's financial strategy and works with external financiers to obtain financing for the company's development. Raimonds Lieksnis received a PhD from Riga Technical University during the reporting period. His research interests include the predictive power of price models in the Baltic stock market. Raimonds Lieksnis also works for RBS Council. At RBS is responsible for financial education courses.
- Andrejs Jakobson, M.sc., Docent at RBS. Andrejs Jakobsons holds a master's degree in economics from Indiana University, USA. In recent years, he has worked as a researcher and labor market consultant for the Baltic International Center for Economic Policy Studies

(BICEPS). His research interests include international economics, labor economics and macroeconomics. Previously, Andrejs worked as an economist at the World Bank's Latvian office, conducting research and project-related duties (1998-2006). Andrejs Jakobsons also works for the RBS Council. At RBS is responsible for courses in economics.

RBS divides its teachers into two groups: permanent lecturers and supporting lecturers. The permanent lecturers are involved not only in academic and scientific work but also in administrative tasks (e.g. in the RBS Board and Lecturer Committee). Supporting lecturers are only involved in academic work because most of them have significant commitments outside RBS. Providing special subjects, lecturers often invite guest speakers. The table below lists the visiting professors involved in the study program from abroad during the reporting period.

Viespasniedzēji / Visiting Professors					
Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2014	IX	Hamed Alavi	Tallinn University of Technology	Igaunija / Estonia	International Marketing
2015	IX	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	Organizational Behavior
2015	I	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	US History
2017	IX	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	Organizational Behavior
2018	V	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	US History
2018	IX	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	Organizational Behavior
2018	XI	Kristiana Roth	University of Applied Sciences Upper Austria	Austrija / Austria	Design Thinking
2019	V	Chiaki Sekiguchi Bems	Yamagata University	Japāna / Japan	US History
2019	III	Kristiana Roth	University of Applied Sciences Upper Austria	Austrija / Austria	Organizational Behavior
Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2013	IX	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Human Resource Management
2014	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense
2014	IX	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Human Resource Management
2015	I	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Strategy
2015	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense
2015	IX	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Human Resource Management
2016	I	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Strategy
2016	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense
2016	I	Jon Barry Shore	Sentegra Ltd, Strategy & Innovation – Business Advisory Services, JBS Group, LLC	Norvēģija / Norway	Selling and Sales Management
2016	IX	Justin Wesley Bancroft	Partner in Charge of Risk Management Ukraine, Georgia	Gruzija / Georgia	Generally Accepted Accounting Principles
2017	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense
2018	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense
2019	V	Glen Arthur Barry Grant	Centre for Civil-Military Relations Monterey	ASV / USA	Civil Defense

Academic excellence, considerable business experience, extensive international experience, continuous improvement of knowledge, serious interest to provide a good education to the Latvian society of the faculty members involved in the study program, ensure the achievement of determined goals of the study program.

In the implementation of the compulsory and limited elective parts of the academic bachelor's study program "Management in International Business" (education classification code 43345) participates 5 professors elected in academic positions at RTU, thus the academic staff complies with the first part and third paragraph of Article 55 of the Law on Higher Education Institutions.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

To ensure that the program and the subject content is up to date, readily adjustable to rapidly changing business environment and the set standards of management practices, RBS pays special attention not only to the scientific activities of the teaching staff (such as increasing the qualification of the faculty), but also their practical management and/or consultative activities in their field. The appendix 13 to the *“Summary of the Academic/Professional activities of the faculty”*, depicts a set of scientific/professional activities of the RBS faculty which are taken into account when assessing the qualifications of the lecturing staff.



Mācībspēku akadēmiskās/profesionālās darbības apkopojums  
Summary of academic / professional activities of the faculty

	Pasniedzējs/Faculty	Nozīmīga akadēmiskā/profesionālā pieredze/ Significant academic/professional experience
1	Aldis Greitāns	Valdes loceklis, Citadele banka/ Member of the Board, Citadele banka
2	Andrejs Jakobsons	Ievērojama profesionālā pieredze starptautisko organizāciju projektos, Pasaules bankā, SVF un ANO/ Extensive professional experience in projects of international organizations, World Bank, IMF and UN
3	Andrejs Koliškins, Dr.	Profesors Rīgas Tehniskajā universitātē; Starptautiska pasniedzēja pieredze/ Professor at Riga Technical University; International teaching experience
4	Anita Gaile, Dr.	Personāla vadītājs, Citadele banka/ Head of Human Resources, Citadele Bank
5	Atis Zakatistovs Dr.	Vadības līmeņa konsultants starptautiskiem uzņēmumiem/ Management consultant for multinational companies
6	Chiaki S.Bems, Dr.	Starptautiska pedagoģiskā pieredze/ International pedagogical experience
7	Claudio Rivera, Dr.	Asociētais profesors; Bakalaura programmas vadītājs/ Associated professor; Head of the Bachelor's program
8	Glen Grant	Starptautiska pieredze krīžu menedžmentā un stratēģijā/ International experience in crisis management and strategy
9	Elīna Gaile-Sarkane	Profesore, RTU/ Professor, RTU
10	Irīna Romanova	Vairāku zinātnisko publikāciju un tulkojumu autore/ Author of several scientific publications and translations
11	Ieva Azanda, Dr.	Profesionālā juridiskā pieredze Eiropas Centrālajā bankā/ Professional legal experience at the European Central Bank
12	Inese Eglīte	Profesionālā pieredze, Lektore, RBS/ Professional experience, Lecturer, RBS
13	Inese Muzikante, Dr.	Asociētais profesors, LU/ Associate Professor, University of Latvia
14	Inga Jākobsons, Dr.	Direktors, International Paper / Managing Director, International Paper
15	Inga Lapiņa, Dr.	Profesore, RTU/ Professor, RTU
16	Ingrīda Keviša, Dr.	Docente, Latvijas kultūras akadēmijā/ Associate professor, Latvian Academy of Culture
17	Jānis Grabis, Dr.	Profesors, RTU/ Professor, RTU
18	Jānis Grēviņš, Dr.	Direktors, RTU Rīgas Biznesa skola/ Director, Riga Business School, Riga Technical University
19	Juris Blūms, Dr.	Profesors, RTU/ Professor, RTU
20	Justin Bancroft, Dr.kan.	Valdes loceklis, Lattelecom/ Member of the Board, Lattelecom
21	Kārlis Ātrēns	IT vadītājs Baltijas valstīs, Konekesko Latvija/ IT Manager in the Baltics, Konekesko Latvia
22	Kaspars Šenvalds	Finanšu direktors, NCH Advisors Inc./ CFO, NCH Advisors Inc.
23	Kristīne Sevčenko	Matemātikas pasniedzēja, RTU/ Teacher of mathematics, RTU
24	Kumar Agarwal	Lektors, RBS/ Lecturer, RBS
25	Laine Kristberga, Dr.	Lektore, RBS/ Lecturer, RBS
26	Larisa Iljinska Dr.	Profesore, RTU / Professor, RTU
27	Lāsma Gaitniece	Lektore, RTU/ Lecturer, RTU
28	Lester Golden	Marketing Director, Yacht Premiere magazine
29	Milad Asdaghi	Kopienas un ekonomiskās attīstības direktors, Devon's pilsēta/ Director of Community and Economic Development, City of Devon
30	Ricardo Martín Flores	Kvantitatīvo metožu pētnieks / analītiķis/ Researcher / analyst in quantitative methods
31	Raimonds Lieksnis, Dr.	Valdes loceklis, TVG, Tilde, Nexum Insurance Technologies/ Member of the Board, TVG, Tilde, Nexum Insurance Technologies
32	Raivis Lucijanovs	Valdes loceklis, Pasažieru vilciens; Finanšu direktors, LatRosTrans, Tipro Baltic/ Member of the Board, Passenger Train; Chief Financial Officer, LatRosTrans, Tipro Baltic
33	Randev Dias	Starptautiska pieredze - IT un Projektu vadīšana/ International experience - IT and Project Management
34	Sanita Meijere, Dr.kan.	Filiāles vadītāja Gruzijā, DPA / Branch Manager in Georgia, DPA
35	Tatiana Ginzburg	Angļu valodas centra direktore, RBS/ Director of the English Language Center, RBS

Mostly, RBS faculty members participate in creativity and creativity-supporting activities in a variety of business-related fields.

For example:

- In cooperation with Junior Achievement Latvia (JAL) RBS faculty members participates in the selection of the most successful Student Learning Company (SMU) in Latvia. The event is held several times a year and 3 selection stages are organized. High school students need to present their business idea, development and sales models, as well as the product itself. The best SMU presents Latvia at the international SMU festival.
- In collaboration with the LIAA Mini-MBA Training, RBS faculty members participate in the jury's final work presentations.
- Each year, RBS organizes a Learn Camp for high school students during the fall school holidays. During the week, young people need to offer their own business solution to a real problem for a particular company. RBS faculty are invited to consult young people, provide qualified advice, and participate as a jury member in a brainstorming event.
- Twice a year, one-day training camps (seminar type) RBS 24 are organized in cooperation with the most active young people at JAL. Jury members are always RBS faculty.
- Each year, during the fall semester, RBS hosts the TITANS economic game. During the game, high school students are offered to develop a sales model. In the final, students should prepare a presentation and report on the success of their chosen sales and strategy model. RBS faculty also participate in the final evaluation.
- For several years, RBS has been a jury in the Business Fairy tale competition. The purpose of this annual event is to motivate young people (grade 7-9) to write Business tales with elements of economics. In 2019, RBS instructors (jury) had to choose 5 better tales from 300 participants.
- Participation in the Inovuss festival was also very significant for RBS: some of RBS faculty was invited not only to be leading experts in the discussions, but also to become members of the jury at one of the final selection stages of the StartUp evaluation. The winner had the opportunity to present and represent Latvia in the final of the World Innovative Ideas Competition in China.
- In cooperation with the Latvian Basketball Youth League, every year RBS faculty participate in the organization of the erudition game and in the evaluation of the results. Children, basketball players from all over Latvia, participate in the game.

During the reporting period, Claudio Rivera has visited foreign universities giving lectures on various topics:

Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2017	IX	Rivera Claudio	Shanghai University SILC Business School	Ķīna/ China	Organizational Behavior and Innovation: a One-belt-one-Road Perspective
2017	XII	Rivera Claudio	Eastlands College of Technology (Nairobi)	Kenija/ Kenya	Canvas model - how to launch a new business
2018	XI	Rivera Claudio	Institut universitaire de technologie de Saint-Nazaire	Francija/ France	Getting ready for international corporations

The world practice shows, that in management study programs enormous importance is attached not only to the scientific research, but also to the research work in real environment. The lecturers of the study program participate in the research work every day.

Can be mentioned the following, specific examples for the application of scientific research results of lecturers in the study process:

- Claudio Rivera's professional experience and research work made a huge contribution to the new outside study course – Personal & Career Development development and implementation;
- Anita Gaile's professional experience and research work made a huge contribution to the new seminar – the Career Coaching development and implementation;
- Laine Kristberga's engagement in art has been very relevant for the development of the study course – Art General;
- Aldis Greitans' experience in entrepreneurship has been used to develop the study course Corporate Governance;
- Inga Jakobsone's doctoral studies and experience in International Paper have been useful for developing the study courses – Strategy and Production & Operations.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

To ensure horizontal cooperation among the faculty members, a program faculty meeting is held at the beginning and at the end of each semester, where new subjects and pedagogical innovation topics are discussed. During the semester, field meetings are held where lecturers discuss developments in their subject field.

Every year the study course content is updated and adapted to the latest developments in the field, possibilities for attracting visiting lecturers are reviewed and the study process is planned accordingly. The improvement of study courses is based on the suggestions made by the students during the evaluation of study courses, as well as the tendencies of the progress of the field.

As the study program is provided by both elected lecturers and a significant number of professionals in the field, the ratio of students to the number of lecturers is 5 students per 1 lecturer.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Studentu statistika.pdf	Studentu statistika.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	BBA_atbilstiba_valsts_standartam.pdf	BBA_atbilstiba_valsts_standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	BBA_profesijas_standarts.pdf	BBA_profesijas_standarts.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	BBA_studiju_kursu_kartējums.pdf	BBA_studiju_kursu_kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	BBA_Studiju_plansFINAL.pdf	BBA_Studiju_plansFINAL.pdf
Descriptions of the study courses/ modules	RTU_BBA_kursiENG.zip	RTU_BBA_kursiLV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	BBA_Diploms_FINAL_Eng.pdf	BBA_Diploms_FINAL_Lat.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās_LU un RTU_2019.pdf	Vienošanās_LU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	BBA_Studiju_ligums.pdf	BBA_Studiju_ligums.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	AIP_atzinums_mazak_ka_250_studejosie.pdf	AIP_atzinums_mazak_ka_250_studejosie.pdf

# Business administration

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Business administration</i>
Education classification code	<i>47345</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Jānis</i>
Surname of the study programme director	<i>Grēviņš</i>
E-mail of the study programme director	<i>jgregvins@rbs.lv</i>
Title of the study programme director	<i>PhD</i>
Phone of the study programme director	<i>+371 67089800</i>
Goal of the study programme	<i>The purpose of the Professional MBA (PMBA) study program is to prepare managers of international companies and organizations who determine and define the basic operational principles of these companies and organizations, make decisions, plan, manage and coordinate the work of the companies/organizations or their business units. RBS's goal directly describes the key tasks to be performed by today's middle and senior-level managers, successfully running their companies. In line with this objective, RBS pursues the task set out in the founding agreement with the State University of New York, Buffalo, "to provide a business management education that meets the Western standard in Latvia".</i>
Tasks of the study programme	<p><i>The detailed objectives of the Professional MBA program are:</i></p> <ul style="list-style-type: none"> <li><i>- provide students with advanced and comprehensive knowledge of businesses and organization management that meets the needs of society for the development of the social and economic environment using up to date teaching methods</i></li> <li><i>- promote the intellectual and personal development of students, their professional development, their continuing education and lifelong learning in the field of corporate and organizational management</i></li> <li><i>- promote the development of student personality and leadership skills and ethical application of these skills</i></li> <li><i>- train students to take a strategic and comprehensive approach to organizational issues, challenges and situations</i></li> <li><i>- develop student proactivity and professionalism for the use of advanced management knowledge to achieve the objectives of the enterprise and/or organization</i></li> <li><i>- teach students to collect, analyze, synthesize and use the information on fundamental and modern management tools, methods and technologies</i></li> <li><i>- promote the diversity of lecturers' and students' opinions</i></li> </ul>

Results of the study programme	<i>After successful completion of PMBA study program, the graduates are able to independently plan, organize and manage business company operations in line with the company's strategy, mission and objectives in the interests of the owners and the public; are able to control performance, motivate employees and ensure communication with stakeholders; are familiar with and able to control the functional areas of the business: marketing, production and services organization, management, finance, management information systems, etc.</i>
Final examination upon the completion of the study programme	<i>Master Thesis</i>

## Study programme forms

### Full time studies - 2 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>86</i>
Admission requirements (in English)	<i>Professional Bachelor Degree and/or 5th Level Professional Qualification, or comparable education / English language proficiency level according to TOEFL PBT 550 (or equivalent result in TOEFL IBT or IELTS tests)</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time studies - 2 years, 6 months - english

Study type and form	<i>Part time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>english</i>
Amount (CP)	<i>86</i>
Admission requirements (in English)	<i>Professional Bachelor Degree and/or 5th Level Professional Qualification, or comparable education / English language proficiency level according to TOEFL PBT 550 (or equivalent result in TOEFL IBT or IELTS tests)</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	86
Admission requirements (in English)	<i>Professional Bachelor Degree and/or 5th Level Professional Qualification, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	86
Admission requirements (in English)	<i>Professional Bachelor Degree and/or 5th Level Professional Qualification, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>english</i>
Amount (CP)	106
Admission requirements (in English)	<i>Academic Bachelor Degree, or comparable education / English language proficiency level according to TOEFL PBT 550 (or equivalent result in TOEFL IBT or IELTS tests)</i>

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	106
Admission requirements (in English)	<i>Academic Bachelor Degree, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 3 years - english

Study type and form	<i>Part time studies</i>
Duration in full years	3
Duration in month	0
Language	<i>english</i>
Amount (CP)	106
Admission requirements (in English)	<i>Academic Bachelor Degree, or comparable education / English language proficiency level according to TOEFL PBT 550 (or equivalent result in TOEFL IBT or IELTS tests)</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 3 years - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	3
Duration in month	0
Language	<i>latvian</i>



Amount (CP)	106
Admission requirements (in English)	<i>Academic Bachelor Degree, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master Degree in Business Administration</i>
Qualification to be obtained (in english)	<i>company manager</i>

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

1) The total amount of the study program from 80 CP to 86 CP has been changed. The amount of credit points has been increased to 6 CP. The total volume has been changed to maintain the volume of study courses at 60 CP as agreed with the University of Buffalo. Upon receiving the RTU Professional Master's Degree, students also receive a certificate that is co-signed with Universities at Buffalo and University of Ottawa, certifying that all academic requirements, including a certain amount of study courses was acquired. A sample of certificate is attached as an appendix to the diploma section.

2) Until now, graduates of the study program "Master of Business Administration" were awarded only professional master's degree in business and organization management. No professional qualification *the head of the organization* was given. Taking into account the Quality Agency's of Higher Education remarks received in February 2020: "... Please note that after the completion of a professional Master's degree program, it is only possible not to award a professional qualification to students who have already obtained an economist's professional qualification at the previous level..." and according to the Article 29 of the Cabinet Regulation No. 512 of 26 August 2014, "Regulations on the State Standard of Second Level Professional Higher Education", the draft resolution on amendments of the study program is being directed to the Senate of Riga Technical University on February 24, 2020 - adding the awarded professional *qualification of organization manager* to program graduates.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

The total number of matriculated students in the program is 2061 since the program was opened. In the 2018/2019 academic period, 60 students were enrolled in the program. Figure 1 "RBS MBA students and graduates by August 31st, 2019" visually shows the dynamics of the program – the number of students and graduates admitted by year. In 2002, more students with relatively weaker English knowledge were accepted as an experiment. However, this practice did not justify itself, because students were unable to follow the teaching material due to the lack of language knowledge. The number of graduates varies from year to year as students plan their own curriculum, which leads to uneven dynamics as to graduation. In the post-crisis period of 2012 and 2013, there was an increase in the number of students admitted, but it has not stayed like that lately. However, there is an increased number of international students (India, Russia, Poland, Japan, Canada, USA) in the MBA program. The figure 2 "RBS MBA enrolled students" visually

reflects the fact that the number of students enrolled in the review period from 2013 to 2019 keeps a stable trend - on average, 65 students per year are enrolled; 57 students per year on average are enrolled part-time, with 8 students full-time. The sustained trend in the number of students enrolled allows smart study process planning, maintaining high-quality teaching levels and adapting teaching to global market trends. Currently, the number of students in the program is 322, of which around 300 active students. The rest of the students are on academic leave or aren't currently studying for other reasons. In the academic year of 2018/2019, the revision and evaluation of the student list was done, which resulted in the withdrawal of the students who had not completed their studies within a set time due to failing grades or other reasons, with a total withdrawal of 33% of the total number of students in the program. In the future, it is planned to systematically check the student list, thereby obtaining real-time information on students participating in the study process on a regular basis. The figure 3 *"Breakdown of students withdrawn from the RBS MBA based on the reason for withdrawal"* visually shows the number of students withdrawn during the review period, while maintaining a steady annual student withdrawal number of 12 students per year on average, while in 2018/2019 academic year, after the checkup, withdrawing more than 100 inactive students. During the review period, international students from different countries were also enrolled in the study program, while in previous years this trend did not prevail. The figure 4 *"RBS MBA international students"* reflects the statistics of foreign students during the review period. Six (6) international student countries are represented in the review period. The largest number of students is from Russia -while citizens of this border country are employed in Latvia, they also take advantage of the opportunity to obtain education here. The second largest number of students studying in RBS's MBA program are students from India who don't work in addition to their studies but are enrolled full-time. In 2013, compared to other years in the review period, the largest number of international students from one country- India - was accepted. This student attraction happened thanks to the support of the Department of Foreign Studies. Also, in future review periods, RBS is planning to continue recruiting international students into RBS's MBA program.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The professional MBA Program conforms to the State Education Standard - Cabinet Regulation No. 512 of August 26th, 2014, Regulations Regarding the State Standard for Second Level of Vocational Higher Education" <https://likumi.lv/doc.php?id=268761>. This document is available only in Latvian as it has not been officially translated by the State Language Centre.

The compliance of the study program with the education standard established by the State is reflected in detail in appendix 3 *"Compliance with the national education standard of the Professional MBA degree program "Management of Business Enterprises and Organizations"*.

The qualification to be obtained under the Professional MBA program is in accordance with Protocol No 6 of the Tripartite Cooperation Sub-Council on Vocational Education and Employment, coordinated at the meeting of September 18th, 2019 on the "Professional Standard of the Head of the Organization":

<https://visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-114.pdf> (his document is available only in Latvian as it has not been officially translated by the State Language Centre), which define the

basic tasks and duties of professional activity for the profession, the essential requirements of professional qualifications and the professional knowledge, skills, attitudes, and competencies necessary for their fulfillment. The professional MBA program is intended for the preparation of middle to senior-level managers of medium and large enterprises and organizations in accordance with the qualification requirements of the “Head of the Organization” standard, as illustrated in the appendix 4 *“Compliance with the profession standard of the Professional MBA Program “Management of Enterprise and Organizations”*.

Standardized and internationally recognized admission requirements have been defined from the very launch of the program to meet the objective defined by the Professional MBA program to prepare international business companies and organization managers. The admissions requirements have not changed over time, and have been recognized as qualitative criteria for the student selection in order to achieve the established study program objectives, and, after successful completion of studies, the graduates would achieve the established goals of the studies – to be able to independently plan, organize and manage the work of the company, control performance, run and manage different functional areas of the business. As in modern globalization, middle and senior-level managers must work effectively in an international environment, the program is taught in English, and the English knowledge is one of the admission requirements. The second requirement is an intellectual test that is designed after the Graduate Management Admission Test model and checks the potential student’s competence on topics important for managers: critical thinking; the adequate level of information and level of detail; logics and systemic perception. On the other hand, for the program’s full-time on-site format aimed at top managers, in line with the world practices, the intellectual test is replaced by a structured high-level interview. No changes have been made to the PMBA admission requirements for the period of 2013-2019.

The study program is implemented in the volume of 80 CP and 100 CP in order to fulfil the provisions of the Cabinet of Ministers Regulations No. 512 “Regulations on the National Standard for the Second Level Professional Higher Education” that “The duration of full-time studies of the master’s program is one to two years, provided that the total duration of bachelor’s and master’s studies is not less than five years” and specified in Paragraph 28 that “in the master’s program the choice of study courses, content and volume of study courses, as well as internship content for the degree to be obtained is determined according to the professional standard (if it is approved by the Tripartite Cooperation Sub-Council for Vocational Education and Employment – PINTSA) ”. In this case, the content of the study program is determined by the professional standard “Organisation manager” approved by PINTSA on 18 September, 2019.

The 100 CP studies are applicable to students who have obtained an academic bachelor’s degree in the previous study period to ensure the provisions of Paragraph 23.3: “The compulsory content of the master’s program consists of internship in the volume of at least 26 credit points, if it is intended for graduates of the bachelor’s program” and specified in Paragraph 27 that “students of the master’s program with a previously obtained academic bachelor’s degree after successful completion of the master’s program obtain a fifth level professional qualification”.

Thus, in order to simultaneously ensure all the above-mentioned requirements of the Cabinet of Ministers Regulations No. 512, the 80 CP program, with the duration of full-time studies is 2 years (including internship in the volume of 6 CP), adds a compulsory internship in the volume of another 20 CP specified in Paragraph 23.3 thus reaching the volume of 26 CP), consequently the volume of the study program increases to 100 CP.

### III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The professional MBA study program operates on the semester system. As a result, each course lasts for 4 months, allowing for full use of contact hours, as well as for the individual and group tasks of students between the lectures. On a part-time basis, each course is taught for 14 weeks, once a week for 4 academic hours. On the other hand, on a full-time basis, each course is taught two to three times a month for 4 academic hours. To attract guest lecturers, the PMBA courses are also taught during the summer semester. In this way, the nominal duration of part-time on-site studies is 2 years and 6 months, while the full-time on-site program lasts for 2 years.

Part-time lectures of the Professional MBA degree program take place on workday evenings from 18:00 to 21:00. The recommended volume of subjects is 2 courses per semester, 3 semesters per year. Following this study model, the students can complete the MBA program within a nominal period of 2 years and 6 months.

The full-time on-site MBA program is planned to be completed in 4 semesters, 5 subjects per semester. Lectures take place in the second half of the week – on Thursdays, Fridays, and Saturdays from 9:00 to 19:30. This time of study has been chosen according to the abilities and expectations of potential students – the middle and senior-level managers of business companies and organizations.

The Professional MBA program courses are regularly updated in line with the industry demand, labor market needs and scientific trends. The appendix “Plan for the full-time and part-time Professional MBA study degree program “Management of Business Companies and Organizations” mirrors full-time and part-time study plans of the MBA program.

The updating of courses in the study program takes place in different ways:

- the program engages guest lecturers - experts from specific industries;
- updating the content of the program courses takes place in accordance with the model of the relevant subjects in partner schools, as well as following course content trends of the world's leading universities;
- the latest internationally-issued teaching materials - both textbook and case studies, etc. are used
- the development of a Master's Thesis is based on the use of the latest scientific research results and their application to a situation in a company or organization.

In the review period of 2013 to 2019, the Professional MBA program courses are being updated step by step in line with the market trends. Changes in the course offers are shown in Figure “*Courses offered as part of the Professional MBA program “Management of Business Enterprises and*

*Organizations” curriculum from 2013 to 2019”*. Four subjects, which were part of the curriculum in previous review period have been removed and six new subjects have been introduced, following the latest market trends and developments in science and innovation. The newly added courses are as follows:

- Financial Management (the main objective of the course is to provide students with knowledge about managing financial institutions and the application of different financial instruments);
- Digital Marketing (the objective of the course is to provide students with basic knowledge about setting up digital marketing campaigns);
- Socially Influencing Systems (a course shows how the dynamic development of the digital economy constantly changes business practices related to customer engagement);
- Service Marketing (the main objective of the course is for students to acquire knowledge and develop skills in a specific area of service marketing, apart from the basic marketing management and strategic marketing);
- Marketing Strategy (the course teaches development and implementation of marketing strategy and strategic identification and evaluation);
- Power and Influence in Organizations (the objective of the course is to explore the sources and dynamics of power and influence);
- Political Risks for Business (the objective of the course is to give students theoretical understanding, empirical skills and knowledge of main sources for analysis of the political risks of companies and investments).

Master’s Thesis must be developed at the end of the PMBA studies, which include research and design or implementation section, analysis of management scientific research, application of the results to problem-solving in business companies and organizations and implementation plan for problem solutions. Master’s Thesis reflects a student's ability to integrate and apply the knowledge acquired in the MBA program from an academic and professional perspective.

**Studiju programmas mācību kursu piedāvājums laika posmā 2013 – 2019.gads**  
**profesionālā maģistra studiju programmā “Uzņēmumu un organizāciju vadīšana”**  
**Courses offered as part of the Professional MBA program “Management of Business Enterprises and Organizations”**  
**curriculum from 2013 to 2019**

	Mācību kursa nosaukums	Komentāri	Pasniedzējs	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Obligātie un obligātās izvēles kursi	Financial and Managerial Accounting		R.Luočanovs	x	x	x	x	x	x
	Financial Management		R.Lieksnis	x	x	x	x	x	x
	Managerial Economics		A.Jakobsons	x	x	x	x	x	x
	Management Information Systems		M.Jegorovs > S.Meijere	x	x	x	x	x	x
	Marketing Management		I.Eglīte > K.Brimerberga	x	x	x	x	x	x
	Human Resource Management		D.Ērgle	x	x	x	x	x	x
	Organizational Behavior		G.Mathers	x	x	x	x	x	x
	Managerial Statistics		A.Koliškins	x	x	x	x	x	x
Finanšu ierobežotās izvēles kursi	Management Strategies		A.Dziedons	x	x	x	x	x	x
	Entrepreneurial Finance		R.Lieksnis	x		x		x	
	International Financial Management (out)	izņemts no programmas							
	Investment and Banking (out)	izņemts no programmas							
	Investment Management		R.Lieksnis	x		x		x	
	Topics in Corporate Finance		R.Lieksnis		x		x		x
	Risk Management		W.Schaub	x		x		x	
	Financial Institutions Management	jauns kurss	R.Lieksnis		x		x		x
Mācību ierobežotās izvēles kursi	Project Management		E.Sproģe > T.Nikitina > J.Grēviņš	x		x		x	
	E-business (out)	izņemts no programmas							
	Information Assurance (out)	izņemts no programmas							
	Information Technology and Strategy		S.Meijere			x		x	
	Enterprise Processes and Applications		J.Grabis	x		x		x	
	Digital Marketing	jauns kurss	K.Kuzikovs > V.Kaže				x	x	
	Socially Influencing Systems	jauns kurss	A.Stībe			x			x
	International Marketing Management		V.Kaže						
	Marketing Research		A.Koliškins						
	Marketing Communication		P.Young			x			
	Consumer Behavior		M.Ešmits	x					
	Service Marketing	jauns kurss	V.Kaže		x		x		x
Vispārīgie ierobežotās izvēles kursi	Marketing Strategy	jauns kurss	A.Jain > I.Eglīte		x				
	Leadership		G.Mathers	x	x	x		x	
	Business Communication Skills		G.Mathers	x		x	x		x
	Entrepreneurship		M.Wells	x	x	x	x	x	x
	Operations and Service Management		A.Dziedons		x				
	Business Ethics		A.Zakarišvils		x		x		x
	Business Law		I.Azanda		x		x		x
	Personal&Career Development		C.Rivera	x	x		x	x	
	Innovation Management		L.Wright > A.Greitāns			x			x
	Corporate Governance		J.Bancroft > A.Greitāns > J.Bancroft		x		x		x
	Political Risks for Business	jauns kurss	D.Auers						x

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The fundamental principle to effectively acquire MBA program content is taking study courses in a logical way, starting with the management subjects and ending with the strategy courses. The second principle, which is typical mainly of the North American MBA programs, is the option for students to choose which courses to enroll in for a given semester. To observe both principles, the logical MBA program subject sequence is determined by the list of prerequisites, which is reflected in figure 5 “List of prerequisites”. The course sequence is ensured automatically by the student registration system that prevents course registration before a prerequisite course is completed. To help students understand the study system, the recommended sequence of courses has been developed (see figure 6 “Recommended sequence of courses in part-time on-site Professional MBA program “Management of Business Enterprises and Organizations” and the figure 7 “Recommended sequence of courses in the full-time on-site Professional MBA program “Management of Business

*Enterprises and Organizations*". This system allows students to plan their study schedule effectively, as well as ensures sequential learning, regardless of the intensity of the study process.

To ensure a logical MBA program acquisition, the RBS Study Portal has a functionality that allows students to register only for the subjects they have completed prerequisites for. In this way, each course has a different student composition, which ensures that students are exposed to different opinions and professional experience. When working on group assignments, this system promotes learning managerial communication skills, which are vital when working in today's vibrant multicultural business environment.

The main procedures for ensuring the quality and permanence of the study process are:

- an option for students to register independently for courses in the portal (ORTUS);
- access to lecture materials for students in the RBS study portal;
- access to up-to-date learning materials and a system for evaluating the quality of studies.

The objectives of program subjects/courses ensure a smooth coverage of the study program goals, thereby providing students with knowledge about current management science issues in the world. A detailed overview of the interlink between the objectives of the study course and the study program is given in appendix 7 titled *"PMBA program Management of Business Enterprises and Organizations study course mapping"*.



Iepriekš apgūstamo studiju kursu saraksts/  
List of prerequisites



Studiju kursa nosaukums/ Study course	Iepriekš apgūstamie kursi/ Pre-requisites	Studiju kursa nosaukums	Iepriekš apgūstamie kursi/ Pre-requisites
Ekonomika vadītājiem/Managerial Economics		Uzņēmuma procesi un programmatūra/Enterprise Processes and Applications	Informācijas sistēmas vadītājiem/Managerial Information Systems
Tirgzinību vadīšana/Marketing Management		Korporatīvo finanšu tēzes/Topics in Corporate Finance	Finansu vadīšana/ Financial Management
Personāla organizēšana un vadīšana/Human Resource Management	Vadīšanas un organizācijas psiholoģija/ Behavioral and Organizational Concepts for Management	Finansu organizāciju vadīšana/Financial Institutions Management	Finanšu un vadības grāmatvedība/ Financial and Managerial Accounting, Finanšu vadīšana/ Financial Management
Vadīšanas un organizācijas psiholoģija/Behavioral and Organizational Concepts for Management		Investīciju vadība/Investment management	Finansu vadīšana/ Financial Management
Statistika komercdarbībā/Managerial Statistics		Komercdarbības likumdošana/Business Law	
Finansu un vadības grāmatvedība/Financial and Managerial Accounting	Statistika komercdarbībā/ Managerial Statistics	Ražošanas un pakalpojumu vadīšana/Operations and Service Management	Finansu vadīšana/ Financial Management
Uzņēmumu vadīšanas stratēģijas/Management Strategies	Finansu vadīšana/Financial Management, Tirgzinības vadīšana/Marketing Management	Līdera prasmes/Leadership	Vadīšanas un organizācijas psiholoģija/ Behavioral and Organizational Concepts for Management
Finansu vadīšana/Financial Management	Finansu un vadības grāmatvedība/ Financial and Managerial Accounting	Uzņēmējdarbība vadītājiem/Entrepreneurial Manager	
Informācijas sistēmas vadītājiem/Managerial Information Systems		Saskarsmes prasmes uzņēmējdarbībā/Business Communication Skills	
Projektu vadīšana/Project management	Finansu un vadības grāmatvedība/ Financial and Managerial Accounting	Korporatīvā vadīšana/Corporate Governance	
Riska vadīšana/Risk management	Finansu vadīšana/Financial Management	Patstāvīgie pētījumi/Independent Research	
Mārketinga komunikācijas/Marketing communication	Tirgzinību vadīšana/ Marketing Management	Politiskie riski biznesā/Political Risks in Business	
Mārketinga izpēte/Marketing Research	Marketing Management	Starptautiskā komercdarbības vide/International Business Environment	
Mārketinga Stratēģija/Marketing Strategy	Marketing Management	Biznesa ētika/Business Ethics	
Starptautiskā tirgzinību vadīšana/International Marketing Management	Marketing Management	Informācijas tehnoloģijas un stratēģija/Information Technology and Strategy	Informācijas sistēmas vadītājiem/ Managerial information Systems
Pakalpojumu tirgzinības/Service Marketing	Tirgzinību vadīšana/ Marketing Management	Uzņēmējdarbība/Entrepreneurship	
Digitālais mārketinga/Digital Marketing	Tirgzinību vadīšana/Marketing Management	Personības un karjeras attīstība/Personal and Career Development	
Patērētāju psiholoģija/Consumer Behavior	Tirgzinību vadīšana/ Marketing Management	Inovāciju vadīšana/Innovation Management	
Sabiedrību ietekmējošās sistēmas/Socially Influencing Systems	Informācijas sistēmas vadītājiem/Managerial Information Systems; Tirgzinību vadīšana/Marketing Management	Maģistra darbs/Master Thesis	
Finanses uzņēmējdarbībā/Entrepreneurial Finance	Finansu vadīšana/ Financial Management		

**Ieteicamā priekšmetu apguves secība nepilna laika klātienes profesionālajā maģistra programmā "Uzņēmumu un organizāciju vadīšana" / Recommended sequence of courses in part-time on-site Professional MBA program "Management of Business Enterprises and Organizations"**

<b>Studiju gads/Study year</b>	<b>Apgūstamie mācību priekšmeti/Courses to be taken</b>
Pirmais/First	Ekonomika vadītājiem/ Managerial Economics Statistika komercdarbībā/ Managerial Statistics Finansu un vadības grāmatvedība/ Financial and Managerial Accounting Tirgzinību vadīšana /Marketing Management Finansu vadīšana/Financial Management Vadīšanas un organizāciju psiholoģija/ Behavioral and Organizational Concepts for Management
Otrais/Second	Informācijas sistēmas vadītājiem/ Managerial Information Systems Personāla organizēšana un vadīšana/Human Resource Management 4 izvēles priekšmeti/ free choice courses
Trešais/Third	Uzņēmumu vadīšanas stratēģijas/ Management Strategies 2 izvēles priekšmeti/2 free choice courses Maģistra darbs/Master Thesis

**Priekšmetu apguves secība pilna laika klātienes profesionālajā maģistra programmā "Uzņēmumu un organizāciju vadīšana"/ Recommended sequence of courses in the full-time on site Professional MBA program "Management of Business Enterprises and Organizations"**

<b>Studiju gads/Study year</b>	<b>Apģūstamie mācību priekšmeti/Courses to be taken</b>
Pirmais modulis/First module	Vadīšanas un organizāciju psiholoģija/ Behavioral and Organizational Concepts for Management Ekonomika vadītājiem/Managerial Economics Statistika komercdarbībā/Managerial Statistics Tirgzinību vadīšana/Marketing Management Līdera prasmes/Leadership Eiropas studiju brauciens/Europe Study trip
Otrais modulis/Second Module	Uzņēmējdarbība/ Entrepreneurship Vadības grāmatvedība/Managerial Accounting Informācijas tehnoloģijas un stratēģijas/Information Technology and Strategy Finansu vadīšana/Financial Management Līdera prasmes/Leadership
Trešais modulis/Third module	Personāla organizēšana un vadīšana/Human Resource Management Biznesa ētika/Business Ethics Stratēģiskā vadīšana/Strategic Management Līdera prasmes/Leadership Kontinentālais studiju brauciens/Continental Study trip
Ceturtais modulis/Forth Module	Komercdarbības likumdošana/Business Law Pakalpojumu tirgzinības/Service Marketing Ražošanas un pakalpojumu vadīšana/ Operations and Service Management Līdera prasmes/Leadership Maģistra darbs/Master Thesis

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The content of the Professional MBA degree program has been designed on the basis of the MBA (Master of Business Administration) program adopted in Western Europe and North America, in particular through the University of Ottawa (OU) in Canada and the University of New York, Buffalo (UB), US study programs. RBS's Professional MBA program "Management of Business Enterprises and Organizations" is in line with the legislation of the Republic of Latvia and is compared to the accreditation requirements of the world's leading business school associations on a regular basis. The program uses the methodologies and standards of the North American MBA programs and study courses.

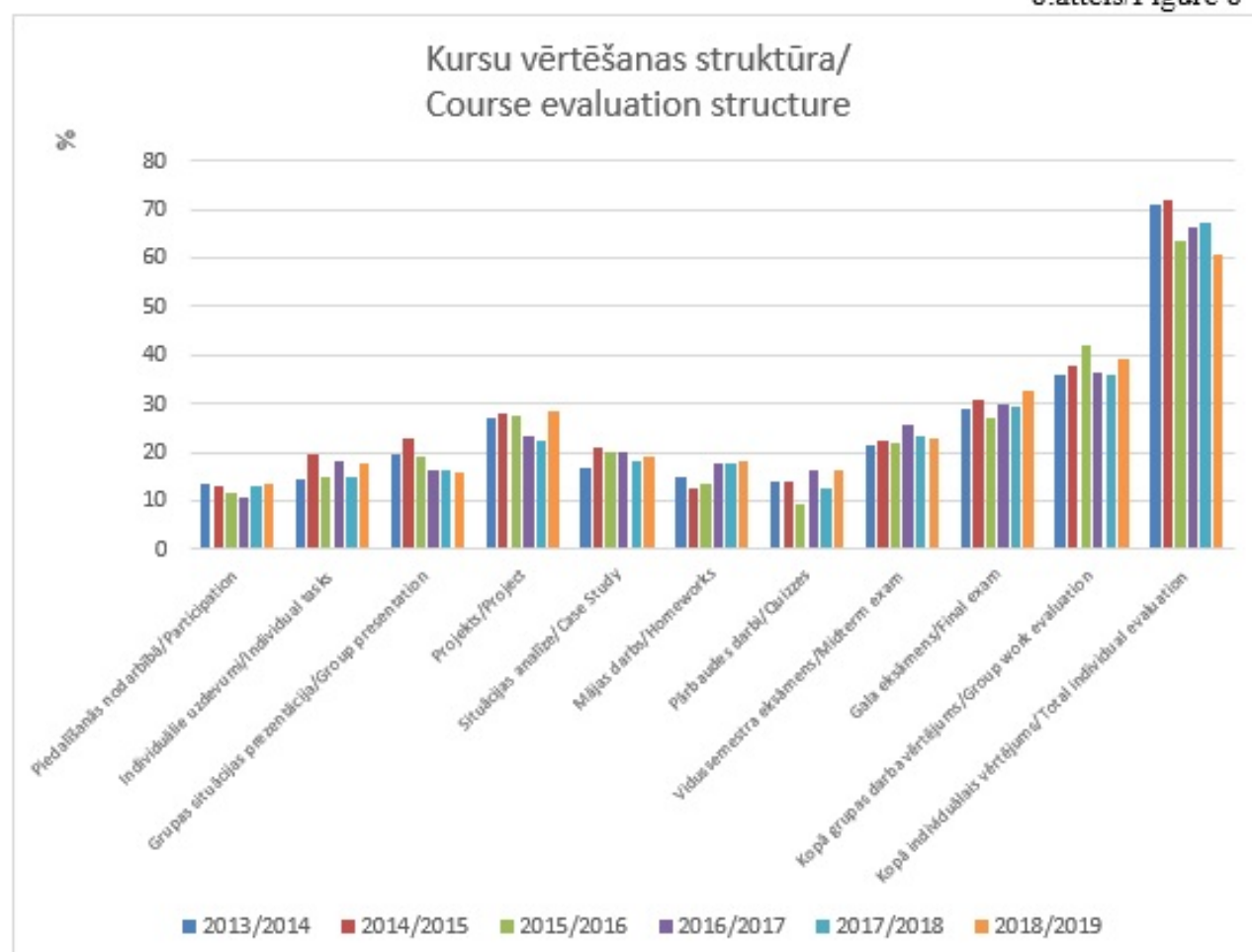
Considering the specific nature of the managerial position, which combines theoretical knowledge,

practical skills, teamwork, presentation, and writing skills, the evaluation system assesses all or most of these aspects in the program's different study courses. Thus, the knowledge assessment is balanced, and the basic principles of practical management work are taught. In order to ensure transparency and consistency of the requirements, each subject has a course description. A draft course description must be submitted by lecturers and available to students at the beginning of the registration for the next semester's courses (approximately 2 months before the beginning of the semester). The final version of the course description must be submitted in the first session. The RBS administration controls the explanation of the requirements and content justification for each course.

In RBS courses, the study process is organized in the form of theoretical lectures, homework, project presentations, practice sessions, seminars, case study analyses, tests, mid-term and final exams. Emphasis is placed on a balanced workload, both throughout the semester and among the different elements of the study process.

As the use of case study analysis methods increases, the relevance of attendance has increased too, as discussions and opinion exchanges are a part of the method during lectures. The specific weight of student's participation and group work in the assessment is determined by the lecturer in the course description. The course assessment structure is presented in figure 8 "Course Evaluation Structure".

8.attēls/Figure 8



This type of course structure allows students to gain practical experience in problem-solving and learn how to work in teams and defend their own individual positions in discussions. As the program's objective is to prepare managers who can work with top management, co-workers, and

subordinates, the program plays a key role in teaching teamwork to students since they must work on team presentations and need to be able to defend their opinion.

The learning process is based on the application of the case study method, which enables the analysis and handling of real problems, both in local and foreign companies. During the review period, the program will continue to use this method. At present, the program uses slightly more than 80 different case studies per year, which ensures that student theoretical knowledge is more tightly linked to everyday business reality and contributes to the development of important skills for entrepreneurs, such as decision-making skills based on the analysis of case studies and the combining different sources of information for decision-making.

In November of 2007, RBS became the first business school in Eastern Europe to enter into an agreement with Harvard Business School Publishing about access to case studies and other teaching materials from Harvard Business School and other leading global business schools. This allows RBS to come closer to its goal of becoming a recognized leader in the Baltics for the use of case study method in management education.

Taking into consideration Latvia's integration into the global economic system and business globalization, the program is taught in English. As a result, students also learn international business terminology.

In RBS, interactive teaching methods are applied. Faculty are encouraged to apply group work, presentations and other methods to make the learning process more interesting and efficient. RBS's study methods include a serious focus on case studies and projects. Not more than 40% of the final grade students get from working on group projects and their presentations.

During studies, students develop, prepare and present a variety of projects, including individual projects, group projects, case studies, and Master's Thesis. The individual and group projects are developed within separate courses and project requirements are described in the course descriptions. The projects provide for the submission of written reports. The outcome of group projects is usually presented to an audience and students receive an assessment from both, the audience and the instructor.

In the review period, RBS continues to support policies on the intolerance of scholastic honesty violations and observes the measures taken previously. Accordingly, all newly accepted students are informed about the code of ethics. In addition, all course descriptions, as well as information published in the information support system, ORTUS, scholastic honesty policy is explained.

During the Master's Thesis writing process, regular (1-per-month) appointments are scheduled for the student and Thesis advisor, well as regular reporting about student's progress is required by the thesis advisor. Such a system promotes greater interaction between lecturers/students and makes it quicker to detect and prevent scholastic honesty violations, including copyright infringement. During this review period, RBS Scholastic Honesty Committee has been set up, with students and academic staff participating in the principle of parity. The purpose of this committee is to make decisions on the academic violations and on sanctions imposed, as well as on the strategy and plan to promote scholastic honesty at RBS. Similarly, as in program courses, the Master's Thesis has precise guidelines in place that clearly define the requirements and decreases the subjectivity of the grade.

The assessment system used in RBS's Professional MBA program was developed at the beginning of the program in 1991 and has not changed significantly over time. This grading system conforms to the assessment practices used by the leading world business schools and the legislative requirements of the Republic of Latvia, and are based on the following principles:

- mandatoriness of the assessment: the need to obtain a passing grade for each course of study;
- a balanced distribution of the assessment – the outcome of the student's work is assessed throughout the semester, using different types of testing methods;
- transparency and consistency of the requirements: at the beginning of each course, the student is informed about the course content and requirements and the grading scheme used;
- academic integrity: Students are required to comply with the requirements of academic ethics and will be imposed sanctions for violations.
- the relationship between the assessment and the requirements of the labor market: the grading system used by RBS meets the criteria for the success of graduates in the managerial positions.

The RBS MBA program uses the grading system approved in the Republic of Latvia. The grade below 4 is insufficient. Mandatory subjects with failing grades must be re-taken. Taking into consideration the international practice for assessing studies in MBA programs, the minimum Grade Point Average (GPA) to graduate must be equal to or greater than eight. This principle is directly aligned with the specific nature of a manager's work, where good results can only be achieved by securing all aspects of management in a balanced and qualitative way.

The study program is implemented various variants, full-time intramural form and part-time intramural form. Also in addition compulsory content consists of additional internship for the students admitted with an academic degree. The study program various variants are implemented uniformly complying with the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The course descriptions of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points do not depend on the implementation variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

In full-time studies, the amount of work in one study week is more intensive compared to part-time studies. The full-time program has a higher proportion of homework versus contact hours. In full-time studies, the intensity of contact hours is higher compared to part-time studies.

In order to meet the requirements set in the program and in each course, in comparison with full-time studies, part-time studies have a longer program acquisition time and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in different types and forms of studies, the study courses differ only in the number of full-time (or contact hours) and independent work hours and the course teaching methodology or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. The emphasis in the part-time extramural study process is on the students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The purpose of the Professional MBA study program is to prepare managers of international companies and organizations who determine and define the basic operational principles of these companies and organizations, make decisions, plan, manage and coordinate the work of the companies/organizations or their business units. The program is designed so that students could combine studies with working full time. Considering the specificities of the program (corporate and organizational management), namely, the fact that exceptional tasks cannot be combined with the duties in the company and the organization, the application of gained practical knowledge is assessed in the context of student work responsibilities.

Students and graduates, mainly, work in international companies. And RBS has direct collaboration with these companies. In these international companies, the working language is not only Latvian, but also English. Therefore offered practice jobs includes the minimum knowledge of the Latvian language, but high level English language skills and knowledge.

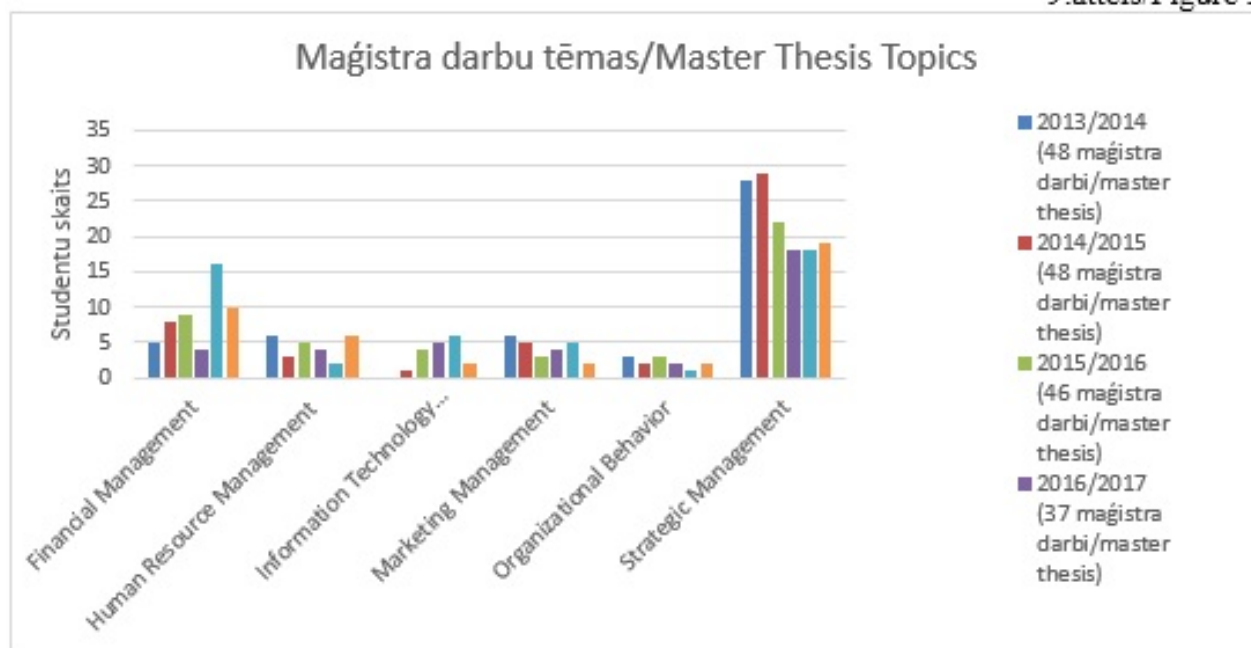
**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Master's Thesis a compulsory component to complete the Professional MBA study program at RBS. The objective of the thesis is to develop and propose new management solutions and their implementation in the problem solving, applying graduate-level knowledge and feasibility, both in the Master's Thesis theoretical section and the practical part. Unlike Bachelor's, Master's Thesis compares perspectives and concepts and applies them to problem-solving to find new problem solutions and activities.

For students to write high-quality Master's Thesis, guidelines have been developed and are available, and students must follow the deadlines. The Master's Thesis Guidelines describe the writing approach, format, assessment, process of writing and defending the thesis, deadlines, privacy, plagiarism, layout and give a sample template.

During the review period of 2013-2019, students, on average, have submitted and defended 45 Master's Thesis per year. The topics of the thesis vary every year, but the majority of thesis defended every year are on Business Strategy that is a topical subject in the employer and business environment. The strategic plans developed in the Master's Thesis are ready to be implemented in the companies under consideration. Figure 9 "*Master's Thesis Topics*" shows the topics of the Master's Thesis during the review period. In the second place, there are topics on Financial Management, the third – Human Resource Management and Marketing. These topics continue to play an important role in the business sector and the labor market.

9.attēls/Figure 9



The final assessment of the Master's Thesis consists of the evaluation by the referee committee, thesis advisor and reviewer. The following is taken into consideration when evaluating the thesis - problem description, analysis, recommendations, implementation, the relevance of the subject matter, answers to the questions, visual presentation, presenter's confidence (see Figure "Master's Thesis Assessment Scheme").

10.attēls/Figure 10

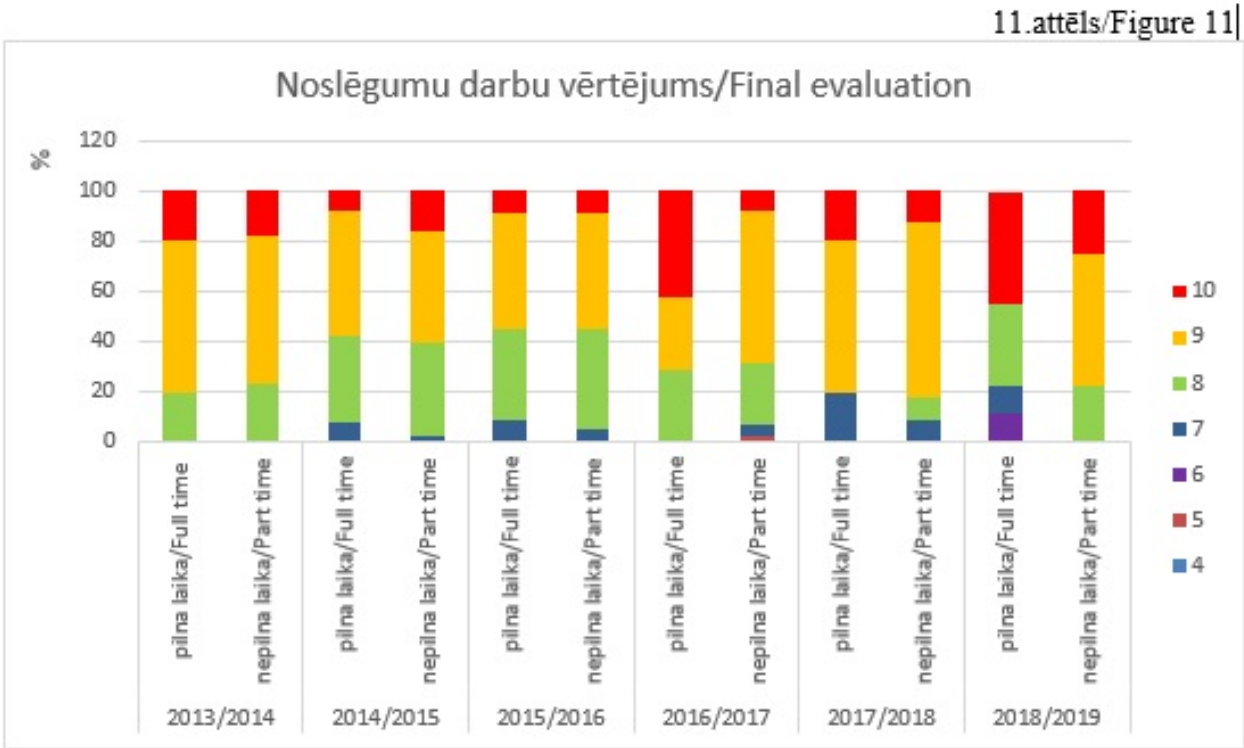
**Maģistra darba gala novērtējuma veidošanās shēma/ Figure "Master's Thesis Assessment Scheme"**

Assessment Scheme								
Problem statement/ Problēmas apraksts	Analysis/ Analīze	Recommendation/ Ieteikumi	Implementation/ Izpilde	Significance of the paper/ Tēmas aktualitāte	Answers to questions/ Atbildes uz jautājumiem	Presentation/ Prezentācija		Final Mark of Thesis Committee Member / Maģistra darba komisijas locekļa gala atzīme
						Visual aspects/ Vizuālais noformējums	Persuasiveness and clarity of presenting/ Pārliecīgā un pasniegšana	
15%	20%	15%	10%	10%	15%	5%	10%	
Final Committee Mark / Kopējā maģistra darbu aizstāvēšanas komisijas gala atzīme			Supervisor's Mark/ Maģistra darba vadītāja atzīme			Referee's Mark/ Maģistra darba recenzenta atzīme		Final Mark/ Maģistra darba gala atzīme
40%			30%			30%		

Figure 11 *Final Evaluation* shows the final thesis assessment of the RBS Professional MBA degree for the review period of 2013 to 2019. In both formats, the full-time and part-time, the Master's Thesis assessment is relatively similar. The summary in the figure shows that the lowest score - up to 7 (good) does not exceed 20%, while the grade of 8 (very good) reaches around 50%. This shows that



the Master’s Thesis are graded largely as excellent and with distinction. Thus, it can be concluded that in the Professional MBA program students have acquired professional and high-quality education, which is reflected in the Master’s Thesis development and presentation.



**2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

One of the key elements in ensuring the quality of studies is the quality evaluation system implemented by RBS. In each of the courses, during the fifth and sixth classes, students complete a mid-term evaluation feedback form, a sample of which is attached (nr. 10) to the “*Mid-Term course and teacher evaluation feedback form*”, in order to help lecturers, improve their teaching quality during the course.



## Early Course and Instructor Evaluation

Course Title: \_\_\_\_\_

Instructor: \_\_\_\_\_ Date: \_\_\_\_\_

EXAMPLE	IMPORTANT DIRECTIONS FOR MARKING ANSWERS	
<p><b>RIGHT</b></p> <p>A B C <input checked="" type="radio"/> D E</p> <p><b>WRONG</b></p> <p>A <input checked="" type="radio"/> B C D E</p> <p>A B <input checked="" type="radio"/> C D E</p> <p>A B C <input checked="" type="radio"/> D E</p> <p>A B C <input checked="" type="radio"/> D E</p>	<ul style="list-style-type: none"> <li>• Use #2 pencil only</li> <li>• Do NOT use ink or ballpoint pens</li> <li>• Make heavy black marks that fill the circle completely</li> <li>• Erase cleanly any answer you wish to change</li> <li>• Make no stray marks on the answer sheet</li> </ul>	<p><i>This form will be processed electronically, please make sure that you fill in the box completely and thoroughly erase completely errors or stray marks.</i></p>

Your responses are an important source of information about the quality of instruction you are receiving. This information will help the School to evaluate the instructor's teaching effectiveness. Please, answer each item thoughtfully and honestly. Your instructor will not receive the final results of this survey until the final grades have been submitted.

	Not satisfied	Satisfied	OK	Good	Excellent
Your gained knowledge	①	②	③	④	⑤
Course materials (i.e. text books, PPT presentations, cases, etc.)	①	②	③	④	⑤
The instructor	①	②	③	④	⑤

Please explain a mark of 1 or 2:

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1. What did you like most about this course?

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2. What would you like to change in the course and why?

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3. Please write other comments or suggestions on how the instructor can improve any aspect of the course

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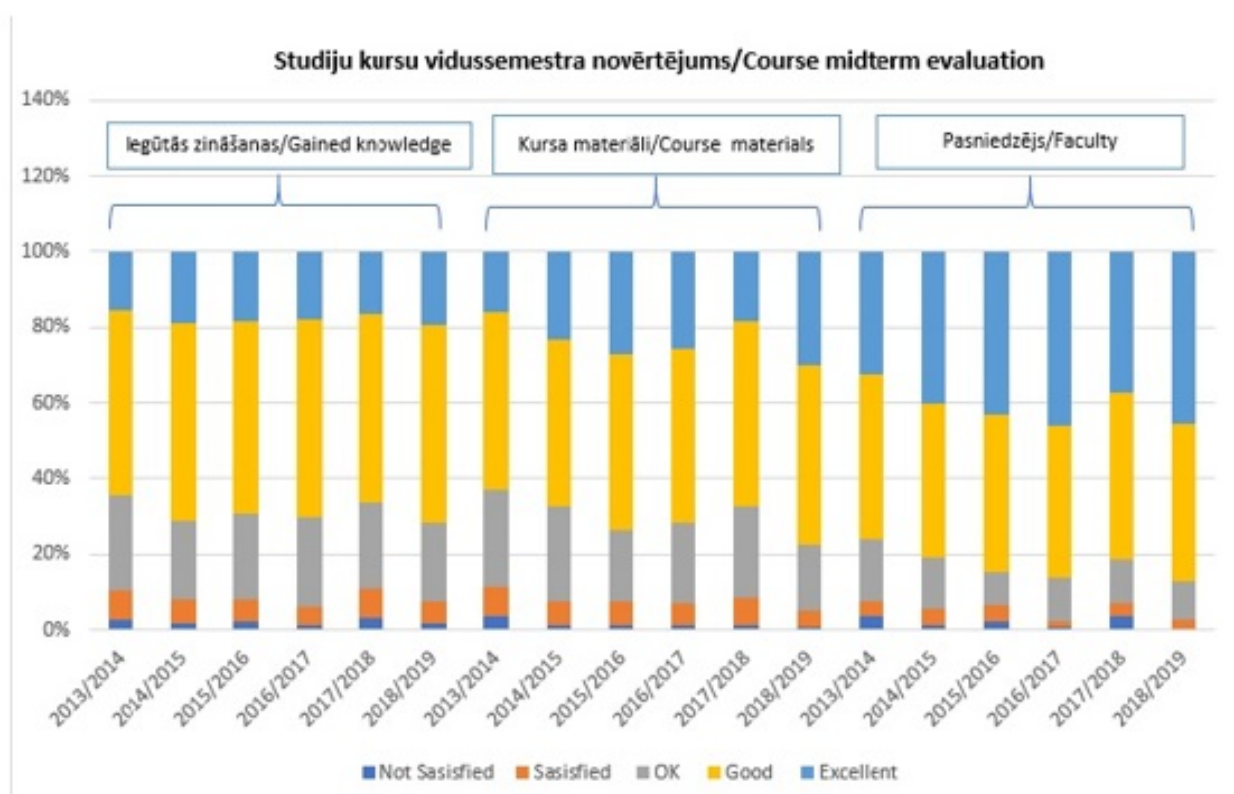


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Immediately after completion, the feedback forms are electronically compiled, and the program director presents the results of the mid-term evaluations to the respective lecturers. Mid-term evaluations make it possible to identify possible necessary improvements in a timely manner. The summary of the mid-term course evaluations for the reference period is shown in figure 12 "course midterm evaluations".



At the end of each course, students fill out the final course evaluation form, thereby expressing their views on the quality of the instruction. When analyzing the final course evaluation results, (see figure 13 “Final course and lecturer evaluation”), it can be observed that the evaluation dynamics is the same by semester. This shows that the quality system used ensures consistent quality of teaching. The final course and instructor evaluation form for PMBA program is shown in appendix 11 titled “Final course and instructor evaluation form”.



### Course and Instructor Survey

Your responses are an important source of information about the quality of instruction you are receiving. This information will help the School to evaluate the instructor's teaching effectiveness. Please, answer each item thoughtfully and honestly. Your instructor will not receive the final results of this survey until the final grades have been submitted.

Course Title \_\_\_\_\_

Instructor: \_\_\_\_\_ Date \_\_\_\_\_

***This form will be processed electronically, please make sure that you fill in the box completely and thoroughly erase completely errors or stray marks.***

<input type="checkbox"/> - Correct	<input checked="" type="checkbox"/> - Not correct	<input type="checkbox"/> - Not correct	<input checked="" type="checkbox"/> - Not correct
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- How did the course meet your needs?  
(not at all) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very well)
  - Proportions of theory and practical applications.  
(too theoretical) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (too practical)
  - How would you judge the pace of the course?  
(too slow) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very fast)
  - The workload for this course is:  
(too light) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very heavy)
  - The difficulty level of the course activities and materials is:  
(extremely easy) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (extremely difficult)
  - How well the course syllabus provided by the instructor helped you to understand the goals and expeditions of the course?  
(very poorly) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (very well)
  - Rate the usefulness of the outside assignments (case analysis, home assignments, and special projects) in helping you to learn more:  
(almost useless) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (extremely useful)
- How could you rate the grading and assignments?**
- (unclear standards) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (clear grading standards)
  - (tested insignificant details) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (tested critical material)
  - (no feedback) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (useful feedback)
  - Usage of visual/audio/video aids:  
(not at all) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (effectively)

**The instructor is:**

12. (unenthusiastic) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (enthusiastic)
13. (uninformed) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (knowledgeable)
14. (inflexible) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (flexible)
15. (intolerant) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (tolerant)
16. Skillful in promoting class/group discussions  
(never) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (always)
17. (avoids discussion) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (encourages discussion)

**Were the lecturers and presentations:**

18. (hard to follow) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (easy to understand)
19. (boring) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (stimulating)
20. (wastes time on insignificant issues) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (stresses important material)

**The textbook and readings used are:**

21. (not relevant) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (relevant)
22. (boring) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (stimulating)

23. Overall, how much do you feel you have learned in this course?

(very little) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 (a lot)

24. Circle the number that best describes your opinion according to the criteria below:

	Not satisfied	Satisfied	OK	Good	Excellent
Your gained knowledge	1	2	3	4	5
Course materials (i.e PPT presentations, cases, etc.)	1	2	3	4	5
The instructor	1	2	3	4	5

**PLEASE USE BLOCK LETTERS!!!**

25. What do you like most about this course?

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26. What would you like to change in the course and why?

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27. Please write other comments or suggestions on how the instructor can improve any aspect of the course

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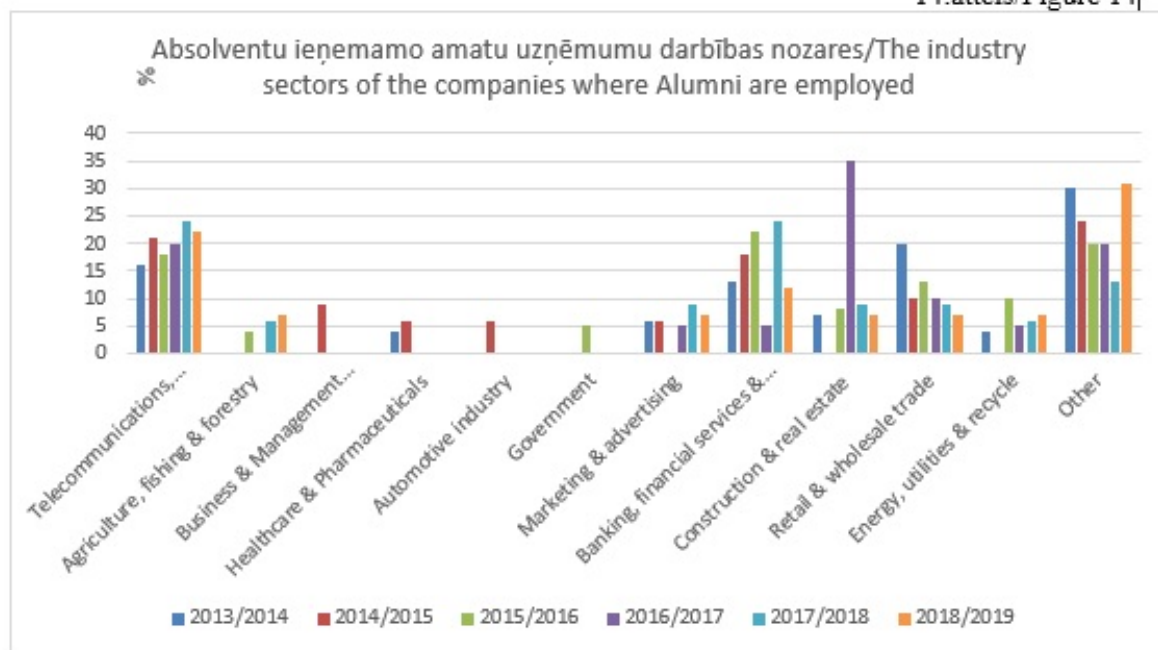
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Thank you for your comments. They will be summarized and given to the instructor and she/he will use them to plan the next course.

Every year, at the end of the study program, polls for graduating students take place. The results of the polls show that 40% of graduates continue to work in Latvian companies, while 52% of graduates start or continue working in international companies. This employment data serves as proof to the quality of the MBA program graduates, according to which RBS graduates hold management positions in Latvia and abroad, as reflected in figure 14 *"The industry sectors of the companies where Alumni are employed"*.



When assessing the distribution of positions of the graduates and their sectoral changes, it should be concluded that the largest employer is in Telecommunications and Information Technology and Services, the second is held by Banking, Finances, and Insurance, while the third place is shared by Trade and the field of Construction and Real Estate. The distribution of positions held by graduates during the review period is changing. Major changes took place in 2016/2017, when Banking, Financial, and Insurance sectors experienced a significant decline, while Construction and Real Estate industries showed a significant increase.

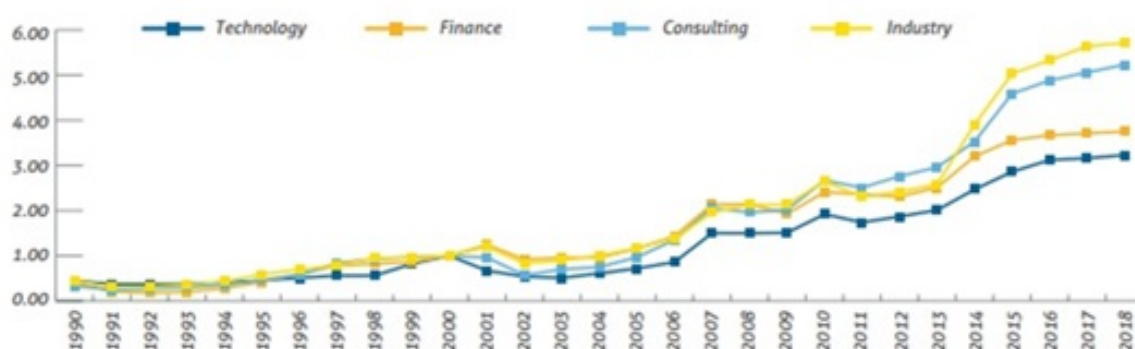
Since RBS's entire study programs are delivered in English and are in line with the world's leading universities, RBS follows the world employment trends on a regular basis.

Looking back at recent years, we see that the demand for an MBA degree has been high in the world. In the Technology, Financial, Consulting and Manufacturing sectors, the demand for MBA has remained strong and has even increased in some sectors. Compared to the previous review period, the demand for MBA has increased, but the growth of new employees in the Financial industry has decreased, compared to the rapid growth in the last two years. Increased demand for MBA is forecasted in the coming years in Manufacturing and Consulting industries, with the existing indicators remaining the same in the Financial and Technology sectors.

Even before the political environment changes in most parts of the Western world, it has been difficult to forecast changes to above- mentioned indicators. Figure 15 "*Long-term Employment Trends Index*" shows that the QS long-term selection index has changed and has increased over the past decade. After a surprising increase from 2013 to 2014, especially in the Manufacturing and Consulting sectors, 2015 was another year of strong growth. Following this increase, the demand for MBA graduates is forecasted to settle, while the number of MBA applicants due to low unemployment and economic growth is likely to fall, as has happened at leading U.S. Business Schools.

### Ilgtermiņa nodarbinātības tendenču indekss

#### Index of long-term hiring trends



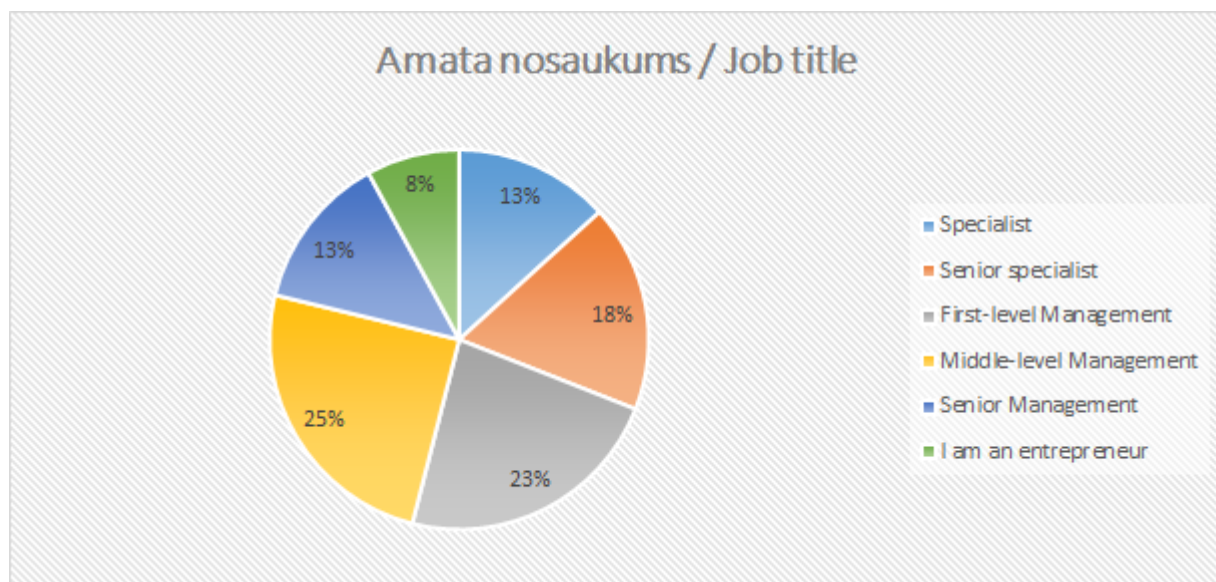
During the study process, students are involved in the evaluation and analysis of the study outcomes. During each course, the lecturers receive feedback from student survey results on the quality of teaching, satisfaction with lectures, practical work, availability and usability of materials, quality and quantity of requirements, and on the effectiveness of the lecturer's teaching style.

The students are elected to the RBS Council, which allows them to engage in the administrative process of their studies and represent student interests.

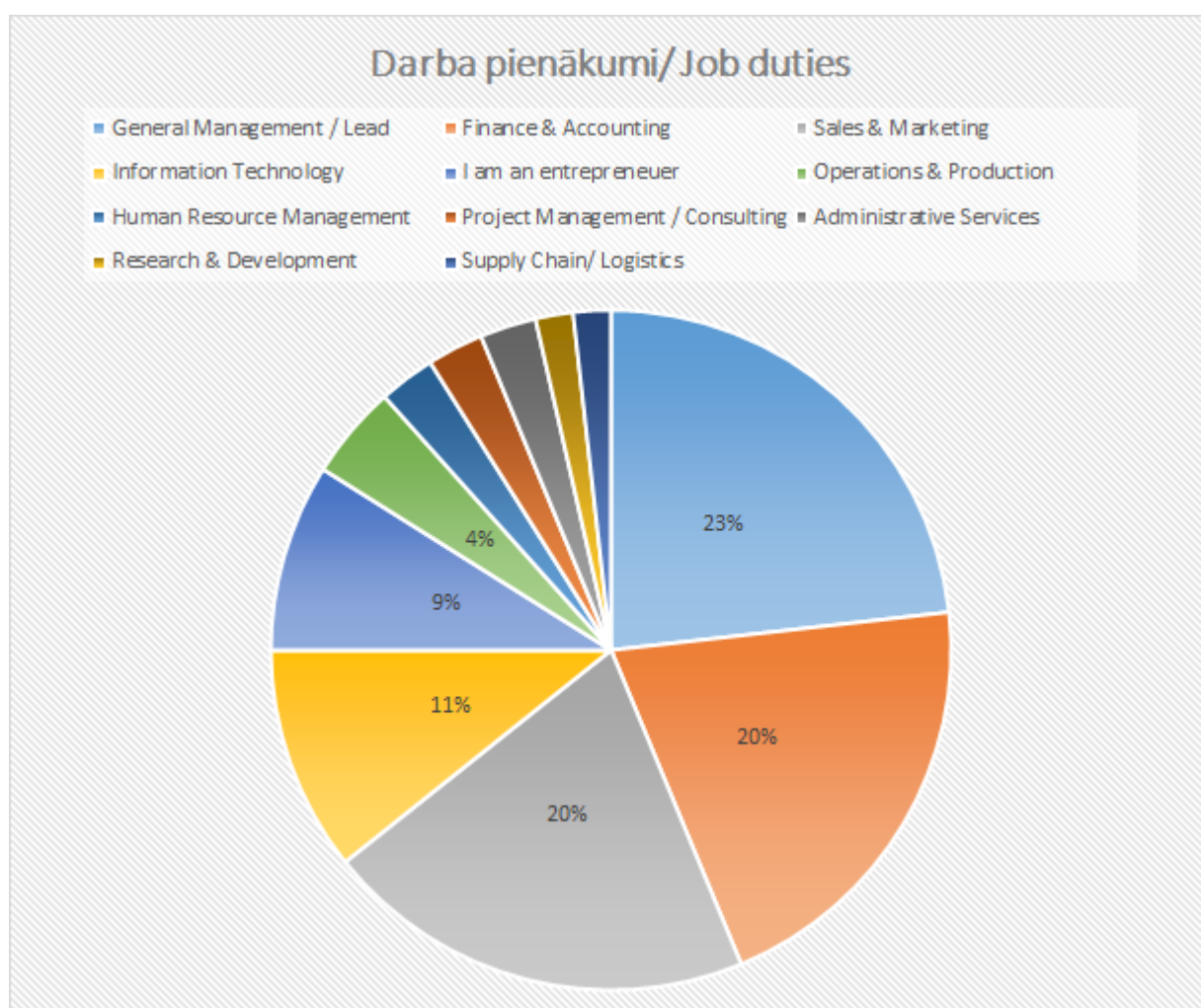
All graduates of the program are requested to participate in the annual alumni survey by completing a questionnaire with 37 questions on study experience at RBS and employment issues. Each year the results of the surveys are analyzed, conclusions are drawn and improvements are made. Overall, students are satisfied with RBS studies, as RBS has well-prepared them for career - over 93% and they would likely recommend RBS - 96%.

After graduation, the majority of graduates work in management positions - 69% of the graduates participated in the surveys, thus applying the knowledge gained during their studies. However, 31% of the graduates who participated in the surveys work as specialists.





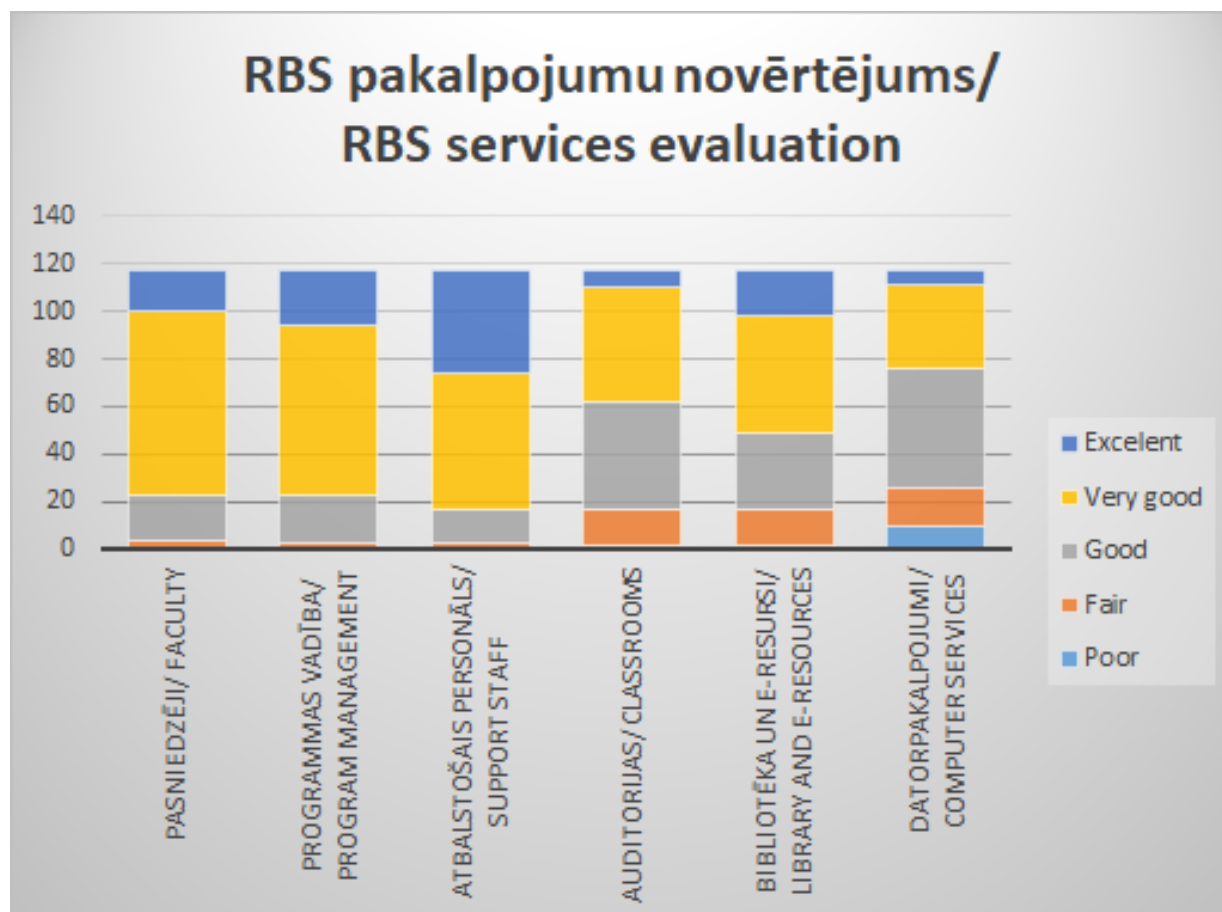
Graduates have a wide range of day-to-day job functions, from finance to marketing, IT functions, personnel functions, administrative functions, and other more. However, there are three main functions that graduates work with in most cases - general management (23% of surveyed graduates), finance and accounting (20% of surveyed graduates), sales and marketing (20% of surveyed graduates).



One of the questions in the RBS questionnaires is about the quality of the RBS services, which RBS graduates rate as good. RBS graduates are very satisfied with the faculty, management and service staff. Similarly, the satisfaction of resource-related services such as classrooms, libraries and



computer services is generally very good or good.



The stakeholders in the operation of RTU Riga Business School Professional MBA program and its results – the graduates, who can ensure a balanced and sustainable economic growth in Latvia, are students, graduates, employers, and Latvian society. Consequently, during the review period, RBS has focused on establishing strategic partnerships that would allow the best representation and implementation of the common interests of these groups. Among RBS's cooperation partners are the Latvian Ministry of Foreign Affairs, the US Embassy in Latvia, the American Chamber of Commerce in Latvia, the British Chamber of Commerce in Latvia, the Norwegian Chamber of Commerce in Latvia, the Latvian Investment and Development Agency, IT Cluster, Latvian Employers' Confederation, Latvian Chamber of Commerce and Industry, Latvian Personnel Management Association, Latvian Quality Management Association, and the Riga Business School Alumni Association.

A big role in attracting graduates is played by the RBS Alumni Association, which works to promote the visibility of RBS's brand and MBA programs, to establish contacts between the alumni, students and the school, and to maintain relationships with other associations and public organizations. During the review period, the RBS Alumni Association has continued its activities, organizing lectures, seminars and company visits involving both, graduates and students.

All the visits are planned and organized in cooperation with RBS alumni working in these companies. The activities include an environment in which an intensive exchange of ideas takes place and business contacts are formed. Events organized by the RBS Alumni Association – such as business events (seminars, lectures and company visits), and social events (boat trips, sporting events and “homecoming”) are, at the same time, a source of income for the Association, as their costs are covered by membership fees.

Specific examples as improved the study program using surveys of students, graduates and

employers.

Suggested by employers:

- Following multiple consultations with employers Innovation Management study course was introduced
- Human Resource Management course was amended with the material about usage of the artificial intelligence in the human resource management;
- Management Information Systems course was amended by adding material about artificial intelligence, machine learning and cloud computing;
- Marketing Management course was amended by adding material about digital marketing.

Suggested by the Alumni:

- RBS mentorship program was introduced where students are mentored by representatives of the RBS alumni.

Suggested by students:

- Marketing Management course was enriched by Design Thinking classes;
- Leadership Development Practice course was introduced to improve targeted leadership skill development of the students.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

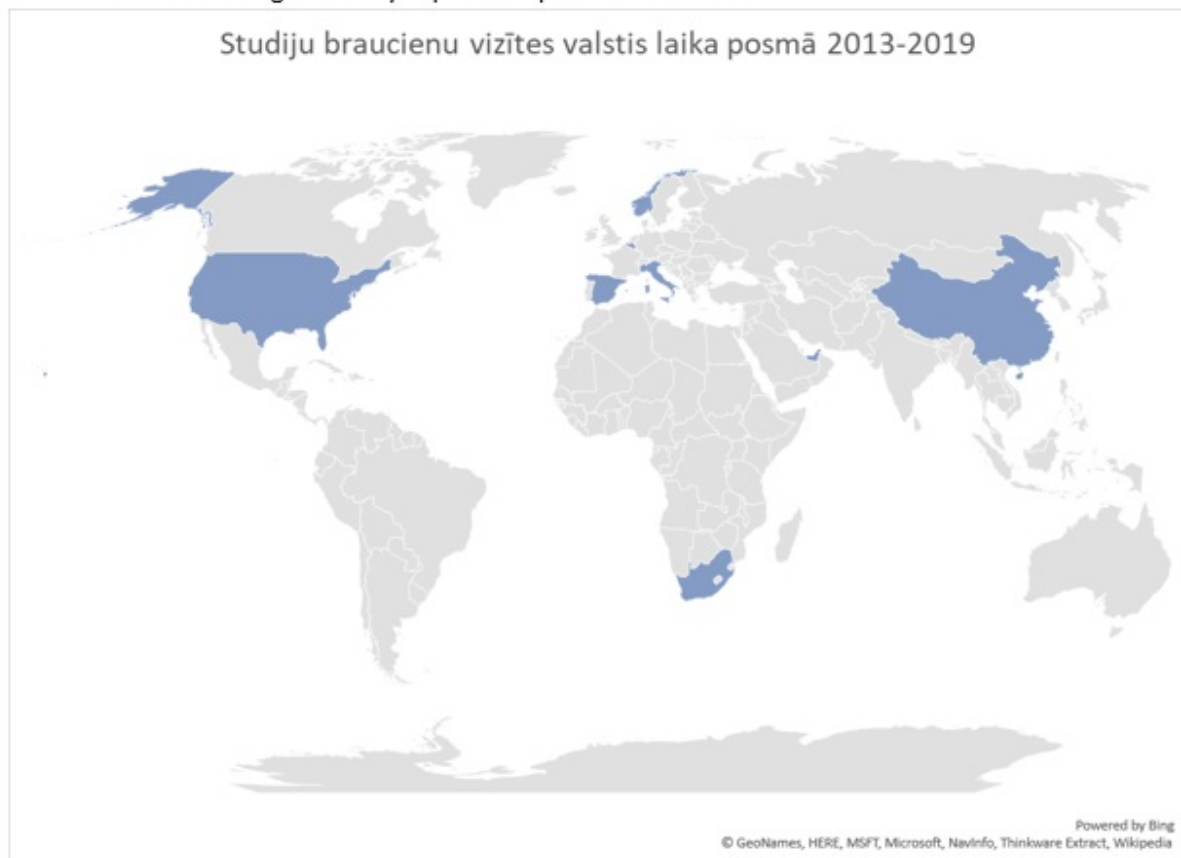
The full-time on-site Professional Master's study program provides for two study trips outside Latvia during the studies. One study trip is planned for one of the Member States of the European Union, the other - outside the European Union. The study trip combines academic learning with a field visit to companies of interest. During the study trip, students have the opportunity to establish international professional contacts.

The purpose of the study trip is to introduce participants to international business operations and activities and to expose managers to an international business climate. The trip will include seminars on economic development, entrepreneurship, intercultural communication, business law, business strategic management and visits to businesses companies and organizations.

International study trips are an experience aimed at expanding students' global outlook. As part of the academic program, study trips offer students exposure to outstanding economic activities, market trends, and culture, and combine academic learning with visits to business companies and organizations from different industries. In addition, participants interact with business executives and government officials to maximize group dynamics and opportunities to collaborate.

During the review period of 2013-2019, students have had the opportunity to visit a number of countries, including United Kingdom, South Africa, United States of America, Norway, United Arab Emirates, Belgium, China, which is visually shown in the figure 16 *"Countries visited during the study trips in the period of 2013-2019"*.

Countries visited during the study trips in the period of 2013-2019



In addition, PMBA part-time students, with the program director's approval, have the opportunity to participate in the study trips and transfer the credits earned during the trip towards the study program.

Figure 17 "*Student trips to foreign universities from 2013-2019*" illustrates the number of countries and schools visited, as well as the number of students participating in study trips between 2013 and 2019 in detail.

**Studentu mācību braucieni uz ārvalstu augstskolām no 2013-2019/ Student trips to foreign universities from 2013-2019**

Studiju gads/Study year	Studentu skaits/Student count	Studiju forma/Study form	Valsts/Country	Augstskola/ School
2013./2014.	19	Pilna laika/Full time	Lielbritānija/Great Britain	Cambridge University
	12	Pilna laika/Full Time	Dienvidāfrika/South Africa	University of Stellenbosch Business School
2014./2015.	11	Pilna laika/Full Time	Dienvidāfrika/South Africa	The University of Stellenbosch Business School (USB)
	12	Pilna laika/Full Time	Amerikas Savienotās valstis/United States of America	University at Buffalo, the State University of New York
	8	Pilna laika/Full Time	Norvēģija/Norway	BI Norwegian Business School
2015./2016.				
2016./2017.	1	Nepilna laika/Part time	Spānija/Spain	Miguel Angel Diaz Navarrete
	13	Pilna laika/Full Time	Apvienotie Arābu Emirāti/United Arab Emirates	Westford School of Management FZ LLC
2017./2018.	14	Pilna laika/Full Time	Beļģija/Belgium	European Commission, European Parliament, Brussels European and Global Economic Laboratory (BRUGEL), Business Europe, European Network of Transmission System Operator, Google, and EURELECTRIC
	15	Pilna laika/Full Time	Ķīna/China	Deutsche Management Akademie Niedersachsen (DMAN)
2018./2019.	2	Nepilna laika/Part time	Itālija/Italy	Sapienza University of Rome / Università degli Studi di Roma La Sapienza

### III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1**

### to 3.3.

For the provision of the study process, RBS uses premises in Riga, Skolas Street 11, equipped with modern teaching technology. All in all, for the purpose of the study process, one large auditorium with a capacity of up to 98 people is available, four average auditoriums with a capacity of 45 to 57 people, and seven smaller auditoriums with a capacity of 12 to 35 people are available. The classrooms are equipped with stationary computers for presenters, multimedia projectors, audio, and video equipment and other presentation devices. The school building has a wireless network. One of those classrooms is equipped with an automatic lecture recording system. The technical equipment mentioned is fully compliant with the requirements of modern classrooms and meets the best Latvian and foreign counterparts. There are a specialized library and a computer lab for student needs.

To intensify the study process during the review period, continuous access to “ORTUS” - the RTU joint study support system is provided. At this point, “ORTUS” provides the following to the students:

- uploading lecture handouts and presentations;
- access to documentation governing the study process and its changes;
- lecturers' CVs
- the remote authorization for students to access commercial electronic means of information (Databases);
- information about the student's performance;
- information on the student's financial status, with the possibility of electronic invoicing;
- real-time registration/withdrawal for next semester.

In addition to these services, “ORTUS” provides a teacher-student communication platform within a study course, electronic processing of quizzes and homework and other contemporary study services.

To ensure the study process, RBS has established cooperation with international publishing houses, business case study distributors and electronic database providers to provide RBS students access to the latest teaching materials. In cooperation with international publishing houses, RBS students have access to, and they must use the latest editions of textbooks in all the subjects. In order to provide RBS students with case study materials, RBS collaborates with ECCH (European Case Clearing House) and Harvard Business Publishing (HBS). Thanks to active and professional use of business case study materials in the RBS study process, according to the signed agreement with the HBS publishing company about access to the teaching materials and related teaching manuals, it continues to operate, which allows a wider range of case studies to be obtained thus reducing the cost.

Intense work has been done during the review period to give RBS students access to the electronic resources needed in the management study process. During the reporting period, RBS students and lecturers are provided with access to EBSCO, SpringerLink, IEEE, Web of Science, ProQuest, Science Direct, SCOPUS, ACM Digital Library, MERLOT, Latvian Standards Database, IMF Library, Leta Full Text Database and Reference Database Letonika. As well, students are provided with the search engine PRIMO. PRIMO enables simultaneous searching of subscribed and open access databases, the general library catalog and databases created by the RTU Scientific Library.

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

During the review period, no significant changes have been made to the teaching staff. Of the 35 subjects included in the study program, teaching staff changes have occurred in 5 courses, representing 20% of the total number of the courses offered.

Of the courses in Part A, changes have been made to only one course in Marketing Management, with the involvement of a new lecturer, Katrina Brimerbergz, M.sc. who is also the Director of Non-Food Products in the Baltic Region, RIMI Baltic Group.

From Part B courses the following courses have changed:

- Lecturer Sanita Meijere, M.sc., who has started PhD studies and is at the same time Head of Quality and Information Security at Scandinavian Atea Global Services, is engaged in the "Management Information Systems" course. Her previous work experience is also related to the international IT industry, developing and managing the Latvian IT company DPA branch in Georgia. The lecturer regularly participates in international conferences.
- Lecturer Tatjana Nikitina, M.Sc., who has started her PhD studies and is currently Head of the Worldline Global Project Management Office in the Baltic States, has been involved in the "Project Management" course.
- The study course "Digital Marketing" involved a lecturer, Valters Kaže Dr.oec., who is an Ex Novo Director / Managing Partner with extensive experience in the marketing field.
- The "Marketing Strategy" study course was delivered once during the reporting period by Jain Arun, Dr.sc. Professor at the University of Buffalo (guest lecturer at RBS). Currently the teaching staff of this course is Inese Eglite, M.sc. who is also a board member of the Latvian National Opera with long-standing professional experience as a marketing director in various organizations.
- The course "Innovation Management" was delivered twice during the reporting period. The first time the course is taught by Lawrence Wright, Msc. (guest lecturer), a senior executive with over 20 years of success in global strategic innovation management and investment management. Recognized expert in entrepreneurship, including entrepreneurship education. For the second time this course was taken over by Aldis Greitans, M.sc., who is both a RBS Practical Assistant Professor and RBS Professional Master's Program Manager with previous practical experience in various companies.
- Two lecturers - Aldis Greitans, M.sc., who is both RBS Practical Assistant Professor and RBS Professional Master's Program Manager, and another - Justin Bancroft, who is also a Lattelecom Supervisory Board member, Certified Accountant, and a certified internal auditor,

are involved in the "Corporate Governance" course. Currently, Justin Bancroft acts as an independent financial and corporate governance consultant.

<b>Studiju programmas mācību kursu piedāvājums laika posmā 2013 – 2019.gads</b> <b>profesionālā maģistra studiju programmā "Uzņēmumu un organizāciju vadīšana"</b> <b>Courses offered as part of the Professional MBA program "Management of Business Enterprises and Organizations"</b> <b>curriculum from 2013 to 2019</b>									
	Mācību kursa nosaukums	Komentāri	Pasniedzējs	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Obligātie un obligātā izvēles kursi	Financial and Managerial Accounting		R.Luciņš	x	x	x	x	x	x
	Financial Management		R.Lieksnis	x	x	x	x	x	x
	Managerial Economics		A.Jakobsons	x	x	x	x	x	x
	Management Information Systems		M.Jegorovs > S.Meijere	x	x	x	x	x	x
	Marketing Management		I.Eglīte > K.Brimerberga	x	x	x	x	x	x
	Human Resource Management		D.Ērgle	x	x	x	x	x	x
	Organizational Behavior		G.Mathers	x	x	x	x	x	x
	Managerial Statistics		A.Koliškins	x	x	x	x	x	x
	Management Strategies		A.Dzedons	x	x	x	x	x	x
Finanšu ierobežotā izvēles kursi	Entrepreneurial Finance		R.Lieksnis	x		x		x	
	International Financial Management (out)	izņemts no programmas							
	Investment and Banking (out)	izņemts no programmas							
	Investment Management		R.Lieksnis	x		x		x	
	Topics in Corporate Finance		R.Lieksnis		x		x		x
	Risk Management		W.Schaub	x		x		x	
	Financial Institutions Management	jauns kurss	R.Lieksnis		x		x		x
Mārketinga ierobežotā izvēles kursi	Project Management		E.Sproģe > T.Nikitina > J.Grēviņš	x		x		x	
	E-business (out)	izņemts no programmas							
	Information Assurance (out)	izņemts no programmas							
	Information Technology and Strategy		S.Meijere			x		x	
	Enterprise Processes and Applications		J.Grabis	x		x		x	
	Digital Marketing	jauns kurss	K.Kuzikovs > V.Kaže				x	x	
	Socially Influencing Systems	jauns kurss	A.Stibe			x			x
	International Marketing Management		V.Kaže						
	Marketing Research		A.Koliškins						
	Marketing Communication		P.Young			x			
Vispārīgie ierobežotā izvēles kursi	Consumer Behavior		M.Ešmits	x					
	Service Marketing	jauns kurss	V.Kaže		x		x		x
	Marketing Strategy	jauns kurss	A.Jain > I.Eglīte		x				
	Leadership		G.Mathers	x	x	x		x	
	Business Communication Skills		G.Mathers	x		x	x		x
	Entrepreneurship		M.Wells	x	x	x	x	x	x
	Operations and Service Management		A.Dzedons		x				
	Business Ethics		A.Zakarišvils		x		x		x
	Business Law		I.Azanda		x		x		x
	Personal & Career Development		C.Rivera	x	x		x	x	
	Innovation Management		L.Wright > A.Greitāns			x			x
	Corporate Governance		J.Bancroft > A.Greitāns > J.Bancroft		x		x		x
	Political Risks for Business	jauns kurss	D.Auers						x

Faculty recruitment is based on the strategy that RBS is primarily a "teaching institution", which means paying attention not only to the candidate's professional/research experience but also to their teaching skills in North American-style programs. Thus, it is ensured that the faculty not only follow the latest tendencies occurring in their subjects, but also are able to provide effective teaching methods for students for acquiring knowledge.

Changes in the teaching staff during the reporting period are to be considered positive, as the professional experience of the lecturers is an invaluable contribution to the study program. Students gain both theoretical knowledge and practical experience, which students value as particularly high added value in the study process. The study program follows and checks that changes in the teaching staff have a positive impact on the study process.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

The teaching staff involved in the implementation of the study program meets the qualification requirements and the requirements of the regulatory enactments, as well as ensures the achievement of study course objectives and study results. RTU elected lecturers, field specialists and guest lecturers participate in the implementation of the program.

RBS mainly offers part-time positions for the lecturers. However, RBS believes that lecturers who teach the program's core courses should nevertheless be employed on a full-time basis. Following these principles, RBS has managed to bring together over 25 lecturers during the review period, both with academic and professional experience, and in line with the needs and direction of the study program. The information on the lecturers with their academic and professional qualifications is reflected in figure 18 *"Breakdown of teacher qualifications and levels of participation based on the workload"*.

18.attēls/Figure 18

**Pasniedzēju kvalifikācijas un līdzdalības līmeņa sadalījums, pamatojoties uz pasniedzēju mācību priekšmetu noslodzi/ Breakdown of teacher qualifications and levels of participation based on the workload**

	Iesaistītie pasniedzēji/Faculty involved	Atbalstošie pasniedzēji/Supporting Faculty
Akadēmiski kvalificēti (pasniedzēji ar doktora grādu vai doktorantūrā studējošie)/ Academically qualified (with PhD or PhD students)	17%	42%
Profesionāli kvalificēti (pasniedzēji ar nozīmīgu vadības pieredzi)/ Professionally qualified (lecturers with significant management experience)	14%	27%

RBS divides its teachers into two groups: permanent lecturers and supporting lecturers. The permanent lecturers are involved not only in academic and scientific work but also in administrative tasks (e.g. in the RBS Board and Lecturer Committee. Supporting lecturers are only involved in academic work because most of them have significant commitments outside RBS. Providing special subjects, lecturers often invite guest speakers.

To put it accurately, RBS, in this study program, is looking for lecturers who possess the following qualifications:

- a balance between theoretical and professional knowledge in the field of teaching;
- pedagogical knowledge of modern teaching methods;
- general understanding of other areas of management outside the area of direct competence of the teacher;
- ability to teach in English;
- continuous development of specialized and pedagogical knowledge.



RBS also has the option of getting professional advice from partner universities in recruiting lecturers.

The main lecturers involved in the study program are as follows:

- Jānis Grēviņš, Dr.phil., RBS Director and Director of Study Programs, holds a Ph.D. from Buffalo University. Long-term experience in education: study process management, administrative management, IT process management, international project management, etc. In addition to working at RBS, he is a member of Lattelecom's Supervisory Board. At RBS is responsible for the following IT, Manufacturing and Service Management study courses, as well as internships and Master's theses.
- Andrejs Koliškins, Dr.math., Professor at RTU, director of the Institute of Applied Mathematics, senior researcher at the Institute of Applied Mathematics, guest lecturer at Hong Kong University of Science and Technology. Long-term experience in the field of education: both as an academic lecturer and in the management of the study process. His research interests include the study of stability problems in hydraulics and fluid mechanics with applications to open channel flows and transient flows in hydraulic systems, mathematical methods for heat and mass transfer problems, mathematical models for eddy current test problems, and statistical business applications. Andrejs Koliškins has an extensive list of academic publications. Andrejs Koliškins is also a member of the RBS Council. RBS is responsible for the following courses in mathematics and statistics.
- Claudio Rivera, Dr.sc., the Head of Study Program and Docent at RBS. Claudio grew up in Argentina but has been in Latvia since 2004. Most of his career has been devoted to consulting, training and researching leadership and organizational behavior at companies and organizations such as Elevator International, School of Business Administration Turiba, Stockholm School of Economics in Riga, Euromonitor International, Cisco Networking Academy and IAE. Claudio has extensive experience in consulting in the IT, NGO and HR sectors. He teaches English, Spanish and Latvian and has trained people in over 10 countries and over 30 nationalities. Claudio has been appointed FEN (Poland) guest lecturer in Leadership and Human Resources courses in collaboration with IESE ([www.iese.edu](http://www.iese.edu)), one of the best business schools in Europe. As a researcher, he has published several journals and conference proceedings, and participated in several international research projects. In general, Claudio is widely involved in vocational and higher education. RBS is responsible for courses in Personnel, Leadership, Communication and Psychology.
- Raimonds Lieksnis, Dr.phil., Docent at RBS. Raimonds Lieksnis holds an MBA from the University of Buffalo, USA. Raimonds Lieksnis currently holds the position of Chief Financial Officer of TVG Ltd., where he develops the company's financial strategy and works with external financiers to obtain financing for the company's development. Raimonds Lieksnis received a PhD from Riga Technical University during the reporting period. His research interests include the predictive power of price models in the Baltic stock market. Raimonds Lieksnis also works for RBS Council. At RBS is responsible for financial education courses.
- Andrejs Jakobson, M.sc., Docent at RBS. Andrejs Jakobsons holds a master's degree in economics from Indiana University, USA. In recent years, he has worked as a researcher and labor market consultant for the Baltic International Center for Economic Policy Studies (BICEPS). His research interests include international economics, labor economics and macroeconomics. Previously, Andrejs worked as an economist at the World Bank's Latvian office, conducting research and project-related duties (1998-2006). Andrejs Jakobsons also works for the RBS Council. At RBS is responsible for courses in economics.
- Inese Eglite, M.sc., Docent at RBS. Inese Eglite has more than 10 years of professional experience in marketing in FMCG and services sector, acquired the position of Marketing Director at Latvijas Balzams, Aizkraukles Banka and Riga Stock Exchange. Since 2001, she

has been teaching marketing and marketing research at RBS. She has also been a lecturer at the Chartered Institute of Marketing (CIM) and has served as a management consultant for various companies. Her areas of expertise include international marketing strategy, new product development and unconventional marketing. Currently, Inese Eglite is a board member of the Latvian National Opera. She also served as RBS program manager. At RBS is responsible for marketing courses.

- Aldis Greitāns, M.sc., Docent at RBS and Head of the RBS Study Program. Prior to joining the fintech industry in 1999, Aldis Greitans spent seven years in various leading positions in the Latvian banking industry. Since 1999, he has been the Managing Director of the National Payment Center (later Itella Information and OpusCapita) and chairman of several Itella / OpusCapita Group Company Boards. From 2012 to 2015, Aldis Greitans was a member of Citadele Bank's Supervisory Council. At RBS is responsible for business and innovation courses.

It is also common to have guest lecturers speak to classes and share their experience with the students. Alumni, as well as other experts in the industry serve as guest lecturers. RBS has a good relationship with embassies located in Riga, most notably, the Embassies of Canada and USA. It is common that the embassies will suggest special guest lecturers to the RBS when they know of experts who are in Latvia that might be of interest to the students. Ultimately, the decision to invite any guest lecturer rests directly within the course instructor who controls the quality of guest lectures and ensures appropriate and high quality content. The table below lists the visiting professors involved in the study program from abroad during the reporting period.

Viespasniedzēji / Visiting Professors					
Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2013	I	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2013	V	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2013	V	Arthur Michael Wells Jr.	City University London	Anglija / UK	Entrepreneurship
2014	I	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2014	V	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2014	V	Arthur Michael Wells Jr.	City University London	Lielbritānija / UK	Entrepreneurship
2015	V	Arun Jain	Management school of University at Buffalo	ASV / USA	Marketing Planning and Strategy
2015	I	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2015	V	Christo Nel	Stellenbosch University	Dienvidāfrika / South Africa	Leadership Development Practicum
2016	IX	Agnis Stibe	Massachusetts Institute of Technology	ASV / USA	Social Influencing Systems
2017	IX	Agnis Stibe	Massachusetts Institute of Technology	ASV / USA	Social Influencing Systems
2018	IX	Elias G. Eldayrie	University of Florida	ASV / USA	Power and Influence in Organizations
2019	IX	Agnis Stibe	Business School Paris	Francija / France	Social Influencing Systems
Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2013	IX	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Information Technology and Strategy
2013	V	Alan Tobin	ALAT Group Pty Ltd	Austrālija / Australia	Investments and Banking
2013	VIII	Karsten Dahl Vandrup	High Tech venture Lizard Technology, Vigrig Group	Dānija / Denmark	Innovation Management, Innovation and creativity
2015	IX	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Information Technology and Strategy
2015	V	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2016	V	Justin Wesley Bancroft	Partner in Charge of Risk Management Ukraine, Georgia	Gruzija / Georgia	Risk Management
2016	I	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Leadership Development Practicum
2016	V	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Information Technology and Strategy
2016	V	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2016	I	Abbott Lawrence Wright	Fourthwright Ventures, founder and CEO, USA	ASV / USA	Innovation Management
2017	I	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Leadership Development Practicum
2017	V	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Information Technology and Strategy
2017	VIII	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2017	V	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2017	IX	Peter Frank Young	Silicon Valley Big Data & Cybersecurity Center	ASV / USA	Presentation Skills
2018	I	Voldemārs A. Innus	VAI Consulting Ltd	ASV / USA	Leadership Development Practicum
2018	VIII	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2018	XII	Alan Amron	NPK Expert and American inventor	ASV / USA	Innovation Business Modules
2019	VI	Jonathan Howard	Woosh Water Systems	Lielbritānija / UK	The Barriers to Innovation and Goal Setting
2019	V	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2019	VIII	Arthur Michael Wells Jr.	New Ventures, E-publishing	ASV / USA	Entrepreneurship
2019	II	Peter Frank Young	Silicon Valley Big Data & Cybersecurity Center	ASV / USA	Marketing Communication

Academic excellence, considerable business experience, extensive international experience, continuous improvement of knowledge, serious interest to provide a good education to the Latvian society of the faculty members involved in the study program, ensure the achievement of determined goals of the study program.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

To ensure that the program and subject content is up to date, readily adjustable to the rapidly changing business environment and the set standards of management practices, RBS pays special attention not only to the scientific activities of the teaching staff (such as increasing the qualification of the faculty) but also to their practical management and/or consultative activities in their field. The appendix 12 *"Summary of the Academic/Professional activities of the faculty"*, depicts a set of scientific/professional activities of the by the RBS faculty which are considered when assessing the qualifications of the lecturing staff.

Mācībspēku akadēmiskās/profesionālās darbības apkopojums  
Summary of academic / professional activities of the faculty



	Pasniedzējs	Nozīmīga akadēmiskā/profesionālā pieredze
1	Auers Daunis, Dr.	Asociētais profesors/ Associate professor Baltijas–Amerikas Brīvības fonda pētnieks/ Baltic-American Freedom Foundation researcher
2	Azanda Ieva, Dr.	Profesionālā juridiskā pieredze Eiropas Centrālajā bankā / Professional legal experience at Europe Central Bank
3	Bancroft Junstin, Dr. kand.	Valdes loceklis, Lattelecom / Board member at Lattelecom
4	Blūma Ingrida	Valdes loceklis: HansaMatrix, Rīgas piena kombināts, Expobank Board Member: HansaMatrix, Rīgas piena kombināts, Expobank
5	Brimerberga Katrīna	Mārketinga vadītāja, RIMI/ Marketing Manager, RIMI
6	Dzedons Andrejs, Dr.	RBS Domes priekšsēdētājs: MBA studiju programmu vadītājs / Chairman of RBS Council; MBA program manager
7	Eglīte Inese	Valdes loceklis, LNO/ Member of the Board, LNO
8	Ērgle Daiga, Dr. kand.	Personāla vadītāja, 4Finance global group/ Head of Human Resources, 4Finance global group
9	Ešmits Mārcis	Valdes priekšsēdētājs, Ticon Holdings/ Chairman of the Board, Ticon Holdings
10	Grabis Jānis, Dr.	Profesors Rīgas Tehniskā universitātē/ Professor, RTU
11	Greitāns Aldis	Valdes loceklis, Citadele banka/ Member of the Board, Citadele banka
12	Grēviņš Jānis, Dr.	Direktors, RTU Rīgas Biznesa skola/ Director, Riga Business School, Riga Technical University
13	Iļinska Larisa, Dr.	Profesore, RTU/ Professor, RTU
14	Jakobsons Andrejs	Ievērojama profesionālā pieredze starptautisko organizāciju projektos, Pasaules bankā, SVF un ANO/ Extensive professional experience in projects of international organizations, World Bank, IMF and UN
15	Kaže Valters, Dr.	Asociētais Profesors, RISEBA Mārketinga vadītājs, Amber Beverage Group/Associate Professor, RISEBA Marketing Manager, Amber Beverage Group /
16	Andrejs Koliškins, Dr.	Profesors Rīgas Tehniskajā universitātē Starptautiska pasniedzēja pieredze/ Professor at Riga Technical University; International teaching experience
17	Liekšnis Raimonds, Dr.	Valdes loceklis, TVG, Tilde, Nexum Insurance Technologies/ Member of the Board, TVG, Tilde, Nexum Insurance Technologies
18	Lucijanovs Raivis	Valdes loceklis, Pasažieru vilciens Finanšu direktors, LatRosTrans, Tipro Baltic/ <u>Member</u> of the Board, Passenger Train; Chief Financial Officer, LatRosTrans, Tipro Baltic
19	Mathers Greg	Vadības jomas konsultants Latvijas lielākajiem uzņēmumiem SEB, Accenture, Roche, Radisson, Telia, Oracle u.c./ Management consultant for the largest Latvian companies SEB, Accenture, Roche, Radisson, Telia, Oracle, etc.
20	Meijere Sanita, Dr. kand.	Filiāles vadītāja Gruzijā, DPA/ Branch Manager in Georgia, DPA
21	Rivera Claudio, Dr.	Asociētais profesors; Bakalaura programmas vadītājs/ Associated professor; Head of the <u>Bachelor's</u> program
22	Schaub William	Valdes priekšsēdētājs GE Money Bank Latvija/ Chairman of the Board GE Money Bank Latvia
23	Stibe Agnis, Dr.	Profesors Masačūsetsas tehnoloģiju institūtā/ Professor at the Massachusetts Institute of Technology
24	Wells Michael, Dr.	Starptautiska pasniedzēja pieredze/ International teaching experience
25	Young Peter	Starptautiska pasniedzēja pieredze/ International teaching experience
26	Zakatistovs Atis, Dr.	Vadības līmeņa konsultants starptautiskiem uzņēmumiem/ Management consultant for multinational companies

Mostly, RBS faculty members participate in creativity and creativity-supporting activities in a variety of business-related fields.

For example:

- In cooperation with Junior Achievement Latvia (JAL) RBS faculty members participates in the selection of the most successful Student Learning Company (SMU) in Latvia. The event is held several times a year and 3 selection stages are organized. High school students need to present their business idea, development and sales models, as well as the product itself. The best SMU presents Latvia at the international SMU festival.
- In collaboration with the LIAA Mini-MBA Training, RBS faculty members participate in the jury's final work presentations.
- Each year, RBS organizes a Learn Camp for high school students during the fall school holidays. During the week, young people need to offer their own business solution to a real problem for a particular company. RBS faculty are invited to consult young people, provide qualified advice, and participate as a jury member in a brainstorming event.
- Twice a year, one-day training camps (seminar type) RBS 24 are organized in cooperation with the most active young people at JAL. Jury members are always RBS faculty.
- Each year, during the fall semester, RBS hosts the TITANS economic game. During the game, high school students are offered to develop a sales model. In the final, students should prepare a presentation and report on the success of their chosen sales and strategy model. RBS faculty also participate in the final evaluation.
- For several years, RBS has been a jury in the Business Fairy tale competition. The purpose of this annual event is to motivate young people (grade 7-9) to write Business tales with elements of economics. In 2019, RBS instructors (jury) had to choose 5 better tales from 300 participants.
- Participation in the Inovuss festival was also very significant for RBS: some of RBS faculty was invited not only to be leading experts in the discussions, but also to become members of the jury at one of the final selection stages of the StartUp evaluation. The winner had the opportunity to present and represent Latvia in the final of the World Innovative Ideas Competition in China.
- In cooperation with the Latvian Basketball Youth League, every year RBS faculty participate in the organization of the erudition game and in the evaluation of the results. Children, basketball players from all over Latvia, participate in the game.

During the reporting period, Claudio Rivera has visited foreign universities giving lectures on various topics:

Gads/ Year	Mēnesis/ Month	Vārds, uzvārds / Name	Augstskola / University	Valsts / Country	Lekcijas tēma / Lecture Topic
2017	IX	Rivera Claudio	Shanghai University SILC Business School	Ķīna/ China	Organizational Behavior and Innovation: a One-belt-one-Road Perspective
2017	XII	Rivera Claudio	Eastlands College of Technology (Nairobi)	Kenija/ Kenya	Canvas model - how to launch a new business
2018	XI	Rivera Claudio	Institut universitaire de technologie de Saint-Nazaire	Francija/ France	Getting ready for international corporations

The world practice shows, that in management study programs enormous importance is attached not only to the scientific research, but also to the research work in real environment. The lecturers of the study program participate in the research work every day.

Can be mentioned the following, specific examples for the application of scientific research results of lecturers in the study process:

- Daunis Auers' professional experience and research work made a huge contribution to the new course – Political Risks for Business development and implementation;
- Jānis Grabis' professional experience and research work made a huge contribution to the new course – Enterprise Processes and Applications development and implementation;
- Claudio Rivera's professional experience and research work made a huge contribution to the new course – Personal & Career Development development and implementation;

Aldis Greitans' experience in entrepreneurship has been used to develop the study course Corporate Governance.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

To ensure horizontal cooperation among the faculty members, a program faculty meeting is held at the beginning and at the end of each semester, where new subjects and pedagogical innovation topics of the program are discussed. During the semester, field meetings are held where lecturers discuss developments in their subject field.

Every year the study course content is updated and adapted to the latest developments in the field, possibilities for attracting visiting lecturers are reviewed and the study process is planned accordingly. The improvement of study courses is based on the suggestions made by the students during the evaluation of study courses, as well as the tendencies of the progress of the field.

As the study program is provided by both elected lecturers and a significant number of industry professionals, the ratio of the number of students to the number of lecturers is 12 students per 1 lecturer.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Studejoso_statistika.pdf	Studejoso_statistika.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	MBA atbilstiba_valsts_izglitibas_standartam.pdf	MBA atbilstiba_valsts_izglitibas_standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	profesijas_standarts_4pielikums.pdf	profesijas_standarts_4pielikums.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	studiju_kursu_kartejums_MBA.pdf	studiju_kursu_kartejums_MBA.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	MBA Studiju plāns.pdf	MBA Studiju plāns.pdf
Descriptions of the study courses/ modules	RTU_MBA_kursiENG.zip	RTU_MBA_kursiLV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	MBA diploms_FINAL_Eng.pdf	MBA diploms_FINAL_LV.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās_LU un RTU_2019.pdf	Vienošanās_LU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under <a href="http://www.europass.lv">www.europass.lv</a> ), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	MBA_Studiju_ligums.pdf	MBA_Studiju_ligums.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Entrepreneurship and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Entrepreneurship and Management</i>
Education classification code	<i>45345</i>
Type of the study programme	<i>Academic master study programme</i>
Name of the study programme director	<i>Ieva</i>
Surname of the study programme director	<i>Andersone</i>
E-mail of the study programme director	<i>Ieva.Andersone@rtu.lv</i>
Title of the study programme director	<i>Docente, Dr. oec.</i>
Phone of the study programme director	<i>67608647</i>
Goal of the study programme	<i>The aim of the study program is to educate and train students for independent scientific research, pedagogical activities in management, by developing effective management decision-making logic, management skills and proficiency required for the labor market.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>• To ensure competitive education in entrepreneurship and management relevant for the Master study level and the international standards;</i></li> <li><i>• To provide students with profound knowledge of company management processes, theoretical findings of business and management;</i></li> <li><i>• To develop abilities of students to perform research independently and address business and management challenges creatively;</i></li> <li><i>• To develop up-to-date thinking of students, covering both theoretical and practical issues of management in solution of complex tasks.</i></li> </ul>



Results of the study programme	<p>1. Able to demonstrate profound knowledge and understanding of management processes at companies and theoretical findings of business management used for research and further development of theories.</p> <p>2. Able to demonstrate knowledge and skills in addressing cross-disciplinary business management issues, covering economic and sustainable methods and techniques in the functioning of an enterprise as a complex system.</p> <p>3. Able to use methods of the business management theory independently and creatively and to adapt and integrate the knowledge and practical tools from different areas to address management challenges.</p> <p>4. Able to explain and discuss complex and systemic issues in the business management sub-sector with specialists and all stakeholders.</p> <p>5. Able to independently plan and organize scientific research and projects in the field of business management and innovation.</p> <p>6. Able to demonstrate the awareness of ethical responsibility, the potential impact of scientific outcomes and professional activity on the society and the environment.</p> <p>7. Able to independently formulate, critically analyze and present complex scientific and professional issues, as well as to work together in teams.</p> <p>8. Able to analyze their competences independently and plan their development in the field of business management.</p>
Final examination upon the completion of the study programme	Master Thesis.

## Study programme forms

### Full time studies - 2 years - latvian

Study type and form	Full time studies
Duration in full years	2
Duration in month	0
Language	latvian
Amount (CP)	80
Admission requirements (in English)	Bachelor degree or fifth level professional qualification in economics or business and administration, or comparable education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Master of Social Sciences in Management
Qualification to be obtained (in english)	-

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - english

Study type and form	Full time studies
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Duration in full years	2
Duration in month	0
Language	english
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree or fifth level professional qualification in economics or business and administration, or comparable education. English language proficiency level test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Master of Social Sciences in Management</i>
Qualification to be obtained (in english)	-

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Academic Master study program “Entrepreneurship and Management” is implemented and developed in compliance with the organizational methodological and educational integration standards of the European Union and the requirements set by national regulatory enactments and RTU Senate resolutions. The study program has an academic nature. As a result of the academic studies, students acquire theoretical knowledge and competences that correspond to the knowledge, skills and competences of level 7 of the framework specified in the Latvian education classification. For the study program, students with the degree of Bachelor Degree or 5th Level Professional Qualification in Economics or Business Administration, or comparable education are admitted. The study program allows acquiring knowledge and competences in the field of entrepreneurship and management, developing skills for research and pedagogical activities in the management science, and developing effective management decision-making logic and management skills and competences needed for the labor market.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

The number of students of the Master academic study program “Entrepreneurship and Management” studying in **Latvian** was as follows:

Academic year 2013/2014 – 64 students

Academic year 2014/2015 – 47 students

Academic year 2015/2016 – 50 students

Academic year 2016/2017 – 48 students

Academic year 2017/2018 – 39 students

Academic year 2018/2019 – 36 students

The number of students studying in **English** was as follows:

Academic year 2013/2014 – 29 students

Academic year 2014/2015 – 41 students

Academic year 2015/2016 – 47 students

Academic year 2016/2017 – 38 students

Academic year 2017/2018 – 42 students

Academic year 2018/2019 – 54 students

Annual changes in the number of students studying in the Latvian language have decreased significantly, due to the reduction of public funded budget places, while the number of students studying in the English language tends to increase every year, as interest on the part of students from India has increased in recent years.

In the autumn semester of academic year 2014/2015, the academic performance of 94% of the first-year students was graded as 7.57, whereas the academic performance of 79% of the second-year students was graded as 7.31. In the spring semester, the academic performance of 100% of the first-year students was graded as 7.78 and the academic performance of 86% of the second-year students was graded as 8.37.

In the autumn semester of academic year 2015/2016, the academic performance of 94% of the first-year students was graded on average as 7.70 and the academic performance of 80% of the second-year students was graded on average as 7.76. In the spring semester, the academic performance of 89% of the first-year students was graded on average as 8.14 and the academic performance of 80% of the second-year students was graded on average as 8.06. When commencing their studies, the first-year students faced the situation when it was not always possible to combine their professional career with studies and had to terminate them. In the autumn semester of academic year 2015/2016, four students were dismissed at their request.

In the autumn semester of academic year 2016/2017, the academic performance of 77% of the first-year students was graded on average as 8.08 and the academic performance of 90% of the second-year students was graded on average as 8.07. In the spring semester, the academic performance of 100% of the first-year students was graded on average as 8.56 and 85% of the second-year students was graded on average as 8.18. In the autumn semester of academic year 2016/2017, two students were dismissed at their request and five students were dismissed upon the results of the winter session.

In academic year 2017/2018, the enrolled first-year students had the following previous education: 7 students or 46.7% had the degree of Bachelor of Social Sciences in Economics or Management, 8 students or 53.3% had the respective professional education. However, 5 students or 33.3% continued studying at the Master program at once upon completion of the Bachelor studies, while 10 students or 66.7% obtained a professional experience and then started their Master studies.

In academic year 2018/2019, the enrolled first-year students had the following previous education: 14 students or 63.6% had the degree of Bachelor of Social Sciences in Economics or Management, 8 students or 36.4% had the respective professional education.

When evaluating academic year 2014/2015, the enrolled first-year students had the following previous education: 14 students or 82.4% had the degree of Bachelor of Social Sciences in Economics or Management, 3 students or 17.6% had the respective professional education. In turn, 10 students or 58.8% continued studying at the Master program at once upon completion of the Bachelor studies, while 7 students or 41.2% obtained a professional experience and then started their Master studies.

In academic year 2015/2016, the enrolled first-year students had the following previous education: 15 students or 65.2% had the academic Bachelor's degree in economics or management, 8 students or 34.8% had the respective professional education. Whereas, 12 students or 52.2% continued studying at the Master's program at once upon completion of the Bachelor's studies, 11

students or 47.8% obtained a professional experience and then started their Master's studies.

In the academic year 2016/2017, the enrolled first year students had the following previous education: 16 students or 72.7% had the degree of Bachelor of Social Sciences in Economics or Management, 6 students or 27.3% had the respective professional education. In turn, 15 students or 68.2% continued studying at the Master program at once upon completion of the Bachelor studies, while 7 students or 31.8% obtained a professional experience and then started their Master studies.

In academic year 2017/2018, the enrolled first-year students had the following previous education: 7 students or 46.7% the degree of Bachelor of Social Sciences in Economics or Management, 8 students or 53.3% had the respective professional education. In turn, 5 students or 33.3% continued studying at the Master program at once upon completion of the Bachelor studies, while 10 students or 66.7% obtained a professional experience and then started their Master studies.

In academic year 2018/2019, the enrolled first-year students had the following previous education: 14 students or 63.6% had the degree of Bachelor of Social Sciences in Economics or Management, 8 students or 36.4% had the respective professional education.

When commencing their studies, the first-year students faced the situation when it was not always possible to combine their professional career with studies and had to terminate them. In the autumn semester of academic year 2018/2019, two students were dismissed at their request and three students or 9% were dismissed for academic failure, having not passed the autumn semester tests. Upon the results of the spring session, 1 student or 5.9% was dismissed.

The RTU Golden Fund of Graduates, where the most outstanding graduates of RTU are included upon evaluation of both their academic achievements and public activities, includes also the program graduate of 2014/2015 academic year Aļona Ribakova. In 2015/2016 academic year, the program graduate Aivis Sokins was included; in 2016/2017 academic year – Anda Jēkabsons. In 2017/2018 academic year, Natalia Scacun, Kristīne Vjaks and Santa Jākobsone were included.

Regarding the dismissal of students studying in Latvian by academic years, the situation is as follows:

- In 2013/2014 academic year, 12 students were dismissed for academic failure (first year – 6 students, second year – 6 students), two for not commencing studies after enrolment and one for not resuming studies after an academic leave.
- In 2014/2015 academic year, 2 students were dismissed for academic failure, 2 at their request, two for not commencing studies after enrolment and one for not resuming studies after an academic leave.
- In 2015/2016 academic year, 2 students were dismissed for academic failure, 4 at their request un two for not resuming studies after an academic leave.
- In 2016/2017 academic year, 5 students were dismissed for academic failure, 3 at their request and one for not commencing studies after enrolment.
- In 2017/2018 academic year, 4 students were dismissed for academic failure, 2 at their request one for not commencing studies after enrolment.
- In 2018/2019 academic year, 4 students were dismissed for academic failure un 2 at their request.

Regarding the dismissal of students studying in English by academic years, the situation is as follows:

- In 2013/2014 academic year, 1 student was dismissed for academic failure and 3 students for not fulfilling obligations stipulated by the learning agreement.

- In 2014/2015 academic year, 4 students were dismissed for academic failure, 1 at their request, 1 for not resuming studies after an academic leave, 1 for not fulfilling obligations stipulated by the learning agreement.
- In 2015/2016 academic year, 3 students were dismissed for academic failure, 4 students at their request, 6 for not commencing studies after enrolment, 1 for not resuming studies after an academic leave, 1 for not fulfilling obligations stipulated by learning agreement.
- In 2016/2017 academic year, 4 students were dismissed for academic failure, 1 at their request, 1 for not commencing studies after enrolment, 1 for not resuming studies after an academic leave and 2 for not attending classes.
- In 2017/2018 academic year, 5 students were dismissed for academic failure, 1 at their request, 1 for not commencing studies after enrolment, 1 for not resuming studies after an academic leave and 2 for not attending classes.
- In 2018/2019 academic year, 5 students were dismissed for academic failure, 2 at their request, 3 for not commencing studies after enrolment and 9 for not attending classes.

In total, 52 students studying in Latvian were dismissed, most of them for academic failure (56%) and at their request (25%); whereas, 64 students studying in English were dismissed in total, most of them for academic failure (34%), 19% were dismissed for not starting studies after enrolment and 17% for not attending classes.

Studies in English are chosen by students from different countries such as India, Nigeria, Uzbekistan, Azerbaijan, Sri Lanka, Turkey, etc. In 2013/2014 academic year, most of the students were from Uzbekistan (28%), whereas, starting from 2014/2015 academic year, students were mostly from India, making 34% of the number of students, and in 2018/2019 academic year, the number of students from India continued growing and made as much as 76% of all students.

Statistical data about students of the program are available in Appendix 5.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

Students with the academic degree of Bachelor of Social Sciences in Economics, the academic degree of Bachelor of Social Sciences in Management or other recognizable education are admitted for the study program. Upon the completion of the study program and graduation, students obtain the academic degree of Master of Social Sciences in Management. The study program provides students with profound knowledge in social sciences, obtaining of research skills and development of competences, which are based on the latest theoretical guidelines for entrepreneurship and management, achieving the study results specified in the study program, which correspond to the knowledge, skills and competence of level 7 stipulated by the European Qualification Framework as specified in the Latvian Education Classification, and educating students for further doctoral studies. The knowledge and skills of enterprise management and business development obtained in the course of mastering the study program ensure that graduates of the study program achieve such results of studies that involve the acquisition of advanced knowledge, the development of research skills and competences in terms of social business economic challenges and that specialists who support sustainable, responsible and ethical entrepreneurship are educated and trained within the program.

The study program complies with the national education standard, Cabinet Regulation No.240 "Regulations Regarding the State Academic Education Standard" as adopted on 13 May 2014. Comprehensive information about the compliance is available in Appendix 6.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The program includes study courses enabling the development and training of highly qualified and socially responsible professionals in the fields of entrepreneurship and management whose knowledge, skills and competences would allow for the analysis and assessment of management processes at local, international and public institutions, and in the private sector, as well as specialists who would be able to carry out pedagogical and scientific research activities.

The consistency of the content of the study courses with the needs of the industry and the labor market and scientific trends is evaluated by the annual methodological council, which includes representatives from the labor market, students and the academic staff. The members of the Master's thesis defense commission give their opinion on the latest trends after the defense. These results are introduced to the teaching staff involved in the study process by organizing seminars at least twice a semester.

At the final stage of the study program, Master Thesis is developed in the volume of 20 credit points. Master Thesis is a scientific work of practical nature, showing the theoretical knowledge in business management and research skills of master students relevant to the academic degree to be obtained, analyzing literature sources and statistics, evaluating the effectiveness of marketing options and offering alternative solutions, strengthening the ability to publicly present and defend their research and solutions. To ensure the compliance of the study program with the latest scientific achievements, students actively participate in scientific research; thus, for instance, in the course of elaborating Master's Thesis, students participate in RTU Student Scientific Conference (SSC), where they present the results of their research.

In academic year 2012/2013, 28 master students participated in the 54th SSC (Manufacturing and Business Economy Section).

In academic year 2013/2014, 23 master students participated in the 55th SSC (Manufacturing and Business Economy Section).

In academic year 2014/2015, 21 master students participated in the 56th SSC (Innovation and Business Management Section).

In academic year 2015/2016, 22 master students participated in the 57th SSC (Innovation and

Business Management Section).

In academic year 2016/2017, 17 master students participated in the 58th SSC (Innovation and Business Management Section). The conference was held on 18–19 April. The authors of two best presentations were forwarded to participation in the solemn plenary meeting: Inta Cīmure “Application of Common Methods to the Internal Risk Management Model in Non-Life Insurance”, scientific adviser prof. I.Voronova, and Anda Jēkabsone “Theoretical Aspects of Eco Positioning on the Latvian Market: Problems and Solutions”, scientific adviser prof. E.Gaile-Sarkane.

In academic year 2017/2018, 14 master students participated in the student scientific conference jointly arranged by the Faculty of Business, Management and Economics (FBME) of the University of Latvia (LU) and RTU Faculty of Engineering Economics and Management, held on 23–24 April. The work of the conference was organized in two sections – Pressing Challenges in Economics and Business, Management and Marketing. Summaries of student presentations are available at the LU FBME webpage: <https://www.bvef.lu.lv/konferences-un-seminari/studentu-zinatniska-konference/>.

In academic year 2018/2019, 4 master students participated in the student scientific conference jointly arranged by the LU Faculty of Business, Management and Economics and RTU Faculty of Engineering Economics and Management, held at the LU Faculty of Business, Management and Economics on 23 April 2019. The best presentation at the section was acknowledged to be that of RTU student Roberts Kirilovs on the topic of his own research “Alternative Business Development on the Market of Electric Implants”, scientific adviser prof. E.Gaile-Sarkane. Three students participated with their presentations at the 60th SSC (Section of Entrepreneurship, Innovation, Creativity and Business Finance).

Apart from the aforementioned RTU and LU scientific conferences, students participated in other scientific conferences as well, for example, in 2017, A.Ovsjanikovs participated in ICEM 2017 conference (Ovsjannikovs, A., Didenko, K., Voronova, I. (2017). Change Management: A Case in Latvian Banks. ICEM 2017, May 10–12, Riga, Latvia), in 2018, N.Skakuna participated in two conferences in Latvia – at LU (Skakuna, N., Didenko, K., Voronova, I. (2018). Assessment of the Survival Potential of Latvian Companies (2018). LU 76th Conference, 30 January 2018) and at RTU (Scacun, N., Voronova, I. (2017). Bibliometric Analysis of Financial Risk Assessment in Baltic Countries. SCEE'2017, 58th International Scientific Conference, 13–14 October 2017, RTU).

Students published the results of their research in different editions:

- Lapiņa, I., Maurāne, G., Stariņeca, O. (2013). Sociālās atbildības un kopīgās vērtības radīšanas aspekti: iesaistītās puses un cilvēkresursi. *Ekonomika un uzņēmējdarbība*, 24, 46–56. ISSN 1407-7337. e-ISSN 2255-8756. Available at: doi:10.7250/eb.2013.006;
- Lapiņa, I., Maurāne, G., Stariņeca, O. (2014). Human Resource Management Models: Aspects of Knowledge Management and Corporate Social Responsibility. *Procedia - Social and Behavioral Sciences*, 110, 577–586. ISSN 1877-0428. Available at: doi:10.1016/j.sbspro.2013.12.902;
- Ziemeļe, J., Voronova, I. (2013). Financial Stability of the EU's Insurance Companies. *Economics and Management*, 18 (3), 436–448;
- Scacun, N., Voronova, I. (2018). Evaluation of Enterprise Survival: Case of Latvian Enterprises. *Business, Management and Education*, 16 (1), 13–26.org/10.3846/bme.2018.2482(Web of Science; ERIH Plus;
- Scacun, N., Voronova, I. (2018). Bibliometric Analysis of Financial Risk Assessment in Baltic Countries. *Economics and Business*, 32(1), 182–194. Doi: <https://doi.org/10.2478/eb-2018-0015>. <https://content.sciendo.com/view/journals/eb/32/1/article-p182.xml>(C category). <https://doi.org/10.2478/eb-2018-0015> <https://sciendo.com/view/journals/eb/>



Study courses are updated according to sectoral and scientific trends; the academic staff regularly upgrade their qualifications and introduce their scientific results at their study courses. The relevance of the study courses to the latest tendencies of the respective industry is ensured by visiting lecturers from the industry invited to classes such as, for example, Vita Brakovska, who was invited to conduct some guest lectures for the study course “Innovation and Technology Transfer”, Linda Saulīte conducted guest lectures for the course “Marketing and Digital Transformation”, I.Skribāne was invited as a guest lecturer for the study course “Theory of Economic Analysis”, etc.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The information included in the study courses and the learning outcomes of the study program to be achieved are discussed at meetings of the self-assessment workgroup, which result in mapping of the study courses. There are a lot of discussions at the meetings about the learning outcomes of the study program to be achieved and the intended learning outcomes of the study courses to be achieved to provide students with the required knowledge, skills and competences.

During the first semester, students have three mandatory study courses and two professional specialization courses; during the second semester, students have three mandatory study courses, one professional specialization course and two courses in humanities and social studies; during the third semester, students have four professional specialization courses and one free-choice study course. Comprehensive planning of the study courses is available in Appendix 9.

Other study courses are chosen to provide students with profound knowledge in different areas of business activities and management. Mandatory study courses are mastered during the first two semesters, whereas, during the third semester, professional specialization courses and free electives study courses are offered.

Study courses	Learning outcomes of the study program*							
	R1	R2	R3	R4	R5	R6	R7	R8
IVZ837 Modern Business Models	X	X	X	X	X		X	X
IVZ848 Organizational Theory	X	X	X	X	X	X	X	X
IUF743 Investment and Financing		X	X	X				
IKI703 Process Analysis and Management	X	X	X				X	X

IUF744 Theory of Economic Analysis	X		X	X	X		X	
IEU524 Modern Research Methods			X	X	X	X	X	
IVZ861 Marketing and Digital Transformation	X	X	X	X		X	X	X
IU705 Strategy and Change Management	X	X	X	X			X	
IVZ783 Corporate Social Responsibility and Business Ethics		X	X	X	X	X		
IVZ836 Innovation and Technology Transfer	X	X	X		X	X	X	X
IEU515 Financial Analysis and Planning		X	X	X			X	X
IU706 Integrated Talent Management	X		X	X	X	X	X	X
IVZ839 Research Project in Business Management	X		X	X	X	X	X	
IVZ840 Internship	X	X	X	X			X	X
ETH702 Communication and Presentation Skills				X			X	
IVZ835 Psychology of Work Groups	X	X	X	X		X	X	X
IVZ838 Logics and Argumentation				X			X	X
HSP446 Pedagogy				X			X	
IVZ841 Master Thesis	X	X	X	X	X	X	X	X

\* Learning outcomes of the study program:

- R1 – Able to demonstrate profound knowledge and understanding of management processes at companies and theoretical findings of business management used for research and further development of theories.
- R2 – Able to demonstrate knowledge and skills in addressing cross-disciplinary business management issues, covering economic and sustainable methods and techniques in the functioning of an enterprise as a complex system.
- R3 – Able to use methods of the business management theory independently and creatively and to adapt and integrate the knowledge and practical tools from different areas to address management challenges.
- R4 – Able to explain and discuss complex and systemic issues in the business management sub-sector with specialists and all stakeholders.
- R5 – Able to independently plan and organize scientific research and projects in the field of business management and innovation.

- R6 – Able to demonstrate awareness of ethical responsibility, the potential impact of scientific outcomes and professional activity on the society and the environment.
- R7 – Able to independently formulate, critically analyze and present complex scientific and professional issues, as well as to work together in teams.
- R8 – Able to analyze their competences independently and plan their development in the field of business management.

By considering the mapping of the acquired study courses, it can be concluded that mandatory study courses cover all learning outcomes to be achieved by the study program. The compulsory elective study courses are also designed to achieve most of the learning outcomes of the study program. Comprehensive description of the learning outcomes to be achieved by the study program and the study courses is available in Appendix 8.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The study courses included in the study program are student-centered as they take into account students' different prior knowledge, skills and experience, thus tailoring each individual learning mode. The teaching staff works with students in small groups, which allows to use the most appropriate pedagogical and andragogical teaching methods.

The study process is organized in such a way that students are capable of obtaining both theoretical knowledge and practical skills. Different forms of training are used in the study process: lectures; seminars and discussions; business games; individual and group work; presentation of both individual and group works of students; presentation of reports; guest lectures and seminars. Classes have an interactive nature; students are invited to discuss different aspects on the subject of the lecture, participate in decision-making and solution of problems.

Modern methods of research: in theory and in practice during the study course, students learn a qualitative content analysis, learn to adapt survey texts and pilot, consider different methods of research, such as Delphi, focus group, expert panel, case study, analytical hierarchy method, etc. (home tasks, group work, presentations). During the study course "Process Analysis and Management", advanced process management models (Lean, 6Sigma, TOC) are considered; students understand how to apply the detection methods of organizational problems (opportunities) when mastering this course. Modern business models develop the skills of students to analyze different business models (e-business models). Within the study course "Organizational Theory", students perform individual research, take tests and fulfil class assignments. Within the study course "Investment and Financing", students analyze financial information by using financial and statistical methods – methodology for the valuation of financial instruments, portfolio building methodology, fundamental analysis, and students use Bloomberg database, etc. The study course "Theory of Economic Analysis" considers the non-formalized and formalized methods of economic development analysis, methods of analysis of Latvia's economic development, methodology for analysis of the national accounts system. The study course "Logics and Argumentation" improves students' skills to apply basic logic concepts, analyzing texts, develops the ability to recognize

critical thinking errors in texts and utterances, arguing their opinions. The study course “Pedagogy” examines interactive learning techniques. Within the study course “Financial Analysis and Planning”, students review financial management methods to assess the financial position of a company and acquire the skills to independently develop recommendations and take management decisions in the field of improving financial performance and financial stability of a company. The study course “Talent and Personnel Management” provides knowledge and skills allowing students to understand key personnel management processes, approaches and techniques, including risks and risk reduction methods.

Active participation of students in classroom, when working individually and in groups, participation in discussions, fulfillment of independent assignments, the ability to present the results of one’s research are taken into account in the assessment of the study courses. According to the decisions of RTU Senate, the total performance evaluation approach is used in the study evaluation. In all study courses, the assessment structure consists of a student’s work during the semester; the component of the independent work and examination may not exceed 50% in the assessment structure. At the beginning of the course students are introduced to the evaluation criteria and methods of the respective course. The assessment results are designed to achieve the expected learning outcomes of the course and students receive feedback.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

During Part B of the study program, the study course “Internship” (4CP) is offered, which students can choose by going to the ERASMUS traineeship. In academic year 2016/2017, two students went for ERASMUS traineeship.

**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

In academic year 2013/2014, topics for the graduation paper were chosen on different issues of entrepreneurship and management – improvement of the product portfolio, usage of talent management system, client loyalty increase model, etc.

In academic year 2014/2015, students chose to write more about the financial area – credit risk management, insolvency risk assessment, operational risk management, internal audit effectiveness, etc.

In academic year 2015/2016, students selected topics related to competitiveness aspects and strategy development.

In academic year 2016/2017, various topics were selected, such as the communication planning model, the development of strategies, the model for evaluating intermediaries, staff management

methods, competitiveness, etc.

In academic year 2017/2018, the topics were related to the development of competitive advantages, the development of different management models, the development of strategic alternatives, etc.

In academic year 2018/2019, topics related to quality assessment, alternatives to business development, assessment of professional skills of employees, management of securities portfolio, strategic development alternatives, etc. were selected. In the framework of the study program and the development process of the Master Thesis, students tend to perform applied research, which gives significant added value to the national economy.

In academic year 2013/2014 (Institute of Production and Entrepreneurship), 27 graduates obtained the degree of Master of Social Sciences in Management (the study program implemented in Latvian). When defending the Master Thesis, they were graded as follows:

12 – “excellent” grades or 44%,

11 – “very good” grades or 41%,

4 – “good” grades or 15%.

The degree of Master of Social Sciences in Management (the study program implemented in English) was obtained by 4 graduates, with the following grades:

3 – “very good” grades or 75%

1 – “almost good” grade or 25%.

In academic year 2014/2015 (Institute of Business Engineering and Management), 20 graduates obtained the degree of Master of Social Sciences in Management (the study program implemented in Latvian). When defending the Master Thesis, the average grade was 8.4:

1 – “outstanding” grade or 5%,

9 – “excellent” grades or 45%,

8 – “very good” grades or 40%,

1 – “good ” grade or 5%,

1 – “almost good” grades or 5%,

The degree of Master of Social Sciences in Management (the study program implemented in English) was obtained by 6 graduates. When defending the Master Thesis, the average grade was 7.13:

3 – “excellent” grades or 50%,

1 – “very good” grade or 33%,

1 – “good” grade or 33%,

1 – “almost satisfactory” grade or 33%.

In academic year 2015/2016 (Institute of Business Engineering and Management), 16 graduates

obtained the degree of Master of Social Sciences in Management (the study program implemented in Latvian). When defending the Master Thesis, the average grade was 8.06:

5 - "excellent" grades or 31%,

7 - "very good" grades or 44%,

4 - "good" grades or 25%.

1 - "almost good" grades or 5%,

The degree of Master of Social Sciences in Management (the study program implemented in English) was obtained by 9 graduates. When defending the Master Thesis, the average grade was 6.38:

3 - "excellent" grades or 33%,

1 - "good" grade or 11%,

2 - "almost good" grades or 22%,

2 - "satisfactory" grades or 22%,

1 - "almost satisfactory" grades or 11%.

Diploma with distinction was received by 1 graduate (Foreign Students Department, from the Netherlands).

In academic year 2016/2017 (Institute of Business Engineering and Management), 17 graduates obtained the degree of Master of Social Sciences in Management (the study program implemented in Latvian). When defending the Master Thesis, the average grade was 8.18:

1 - "outstanding" grade or 6%,

5 - "excellent" grades or 29%,

8 - "very good" grades or 47%,

2 - "good" grades or 12%,

1 - "almost good" grades or 6%.

The degree of Master of Social Sciences in Management (the study program implemented in English) was obtained by 8 graduates. When defending the Master Thesis, the average grade was 7.13:

3 - "excellent" grades or 38%,

2 - "very good" grades or 25 %,

1 - "almost good" grade or 12%,

2 - "almost satisfactory" grades or 25%.

Diploma with distinction was received by 1 graduate (Foreign Students Department, from Honduras).

In academic year 2017/2018 (Institute of Business Engineering and Management), 13 graduates obtained the degree of Master of Social Sciences in Management (the study program implemented

in Latvian). When defending the Master Thesis, they were graded as follows:

- 1 – “outstanding” grade or 8 %,
- 6 – “excellent” grades or 46 %,
- 4 – “very good” grades or 31%,
- 2 – “good” grades or 15%.

In academic year 2018/2019 (Institute of Business Engineering and Management), 9 graduates obtained the degree of Master of Social Sciences in Management (the study program implemented in Latvian). When defending the Master Thesis, the average grade was 7.7:

- 3 – “excellent” grades or 33%,
- 3 – “very good” grades or 33%,
- 2 – “good” grades or 22%,
- 1 – “almost satisfactory” grade or 11%.

The degree of Master of Social Sciences in Management (the study program implemented in English) was obtained by 1 graduate by defending the Master Thesis graded as 5.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

Every semester, students have to complete a questionnaire in Ortus, where they evaluate every study course, and the polling results are discussed with students and the involved academic staff. Similarly, polling of the program graduates is performed annually. The polling results reflect strengths and weaknesses of the program implementation. The study program, its content, internship and the obtained knowledge are evaluated.

In academic year 2013/2014, 21 students or 64% participated in the polling. The polling results show that:

- 80% of graduates acknowledge that the study program has provided competitive education in line with international standards and has prepared graduates for work.
- 75% of graduates note the development of skills appropriate for the labor market during their studies and the promotion of interest in continuous learning.
- 75% of graduates note that the knowledge acquired in the training process helps think and make decisions in a structured way. Presentation skills have been improved and, hence, graduates have become more confidence in their capabilities.
- At the same time, students recommend including more study courses in the program related to innovations in business, in order to encourage young entrepreneurs and specialists to think creatively, as well as including business ethics, involving more guest lecturers in the study process, and conducting one of the courses in English.
- Graduates recommend using information technologies more extensively in the study process and in communication between the academic staff and students.

In academic year 2014/2015, 15 students (70% of the 2014/15 graduates) participated in the polling. The polling results show that:

- 75% of graduates acknowledge that the study program has provided competitive education in line with international standards and has prepared graduates for work.
- 70% of graduates note the development of skills appropriate for the labor market during their studies and the promotion of interest in continuous learning.
- 80% of graduates note that the knowledge acquired in the training process helps think and make decisions in a structured way. Presentation skills have been improved and, hence, graduates have become more confident in their capabilities.
- At the same time, students recommend including more study courses in the program related to innovations in business, in order to encourage young entrepreneurs and specialists to think creatively, as well as including business ethics, involving more guest lecturers in the study process, and conducting one of the courses in English.
- Graduates recommend devoting attention to the content of the study courses to avoid repetition of the already acquired topics during the Bachelor studies and using information technologies more extensively in the study process and in communication between the academic staff and students.
- Graduates acknowledge that the study program has provided competitive education in line with international standards. To improve the program, students recommend including more study courses related to entrepreneurship, attracting more visiting lecturers to the study process, providing some courses in English and devoting attention to the content of the study courses to avoid repetition of the already acquired topics during the Bachelor studies.
- On the advice of graduates, it is necessary to review the content of the study courses, to perform lecture observation, arrange more visiting lectures and explore the possibility of ensuring one of the courses in English.

In academic year 2015/2016, graduates were offered to complete graduate questionnaires in the ORTUS system (summer of 2016) and evaluate the results and the process of their studies. Questionnaires were completed by 13 graduates (52%). Students are satisfied with their choice to study at RTU, with lecture rooms, their equipment, study books, materials placed in the e-study environment and would recommend this program to others. Still, a lot of the respondents are not satisfied with the obtained theoretical knowledge, practical skills and curriculum. To improve the program, the students have offered:

- more practical classes;
- to supplement Part C of the program with more study subjects to have a better choice;
- to provide feedback on the Master Thesis to enable discussing the admitted mistakes;
- to have classes before 9:00 p.m. as it is hard to concentrate at classes after 9:00 p.m.

In the opinion of graduates, the evaluation of their knowledge obtained during the study process demonstrates the necessity to review the content of the study program and its implementation.

In the academic year 2016/2017, graduates were polled; 11 graduates out of 17 completed questionnaires. 11 respondents state that, in general, they evaluate the study program positively, the knowledge obtained during the studies is useful to 9 respondents and partly useful to 2. Practical skills obtained during the studies are useful to 6 respondents and partly useful to 5.

As positive features of the study process, they mention:

- support and understanding of the academic staff;
- the study process itself, an opportunity to learn about topical issues and tendencies;
- some very interesting and useful study courses and lecturers attracted from the private



sector;

- convenient time of studies in the evening;
- experienced lecturers with extensive knowledge;
- many interesting lectures providing an understanding of economic and business processes in general;

As negative features of the study process, they mention:

- big focus on group works;
- sometimes subjective evaluation of the Master Thesis, which could be resolved by giving the Master Thesis to two reviewers for obtaining a more objective evaluation;
- tutorials of lecturers only in the daytime;
- the working hours of the library on Sundays, as it works only until 3:00 p.m.;
- some lecturers who were not interested in providing knowledge to students, as they spoke a lot about unrelated things;
- for some lectures, the content is about the same;
- similar content of some study courses;

In academic year 2017/2018 only 9 students out of 19 submitted their questionnaires (47.37%). The graduates most positively assessed the curriculum, the lecture rooms and their equipment, and the availability of materials in the e-studies environment, whereas they most negatively assessed practical knowledge obtained within the framework of the program.

In academic year 2018/2019 only 8 students out of 17 submitted their questionnaires (47.05%). The graduates most positively assessed the availability of materials in the e-studies environment, the availability of information on the study process, whereas they most negatively assessed practical knowledge obtained within the framework of the program. All of the graduates combined their studies with work, 75% of them working full-time and 25% having  $\frac{3}{4}$  of a full-time work. The work of 75% is related to the chosen industry of studies.

During the reporting period, changes in the study program have been introduced, with account of the opinion of students, recommendation of the self-assessment workgroup and the requirements set by the regulatory enactments. On 27 May 2016, the following changes were introduced in the study program:

1. The amount of credit points of the Part A was changed from 35CP to 24CP and the following study courses were excluded from Part A: Economic Theory 3CP, Strategic Management 3CP, Corporate Tax Planning – 3CP, Quantitative Methods in Management – 4CP, Marketing Theory – 3 CP, Electronic Commerce and E-business – 4CP, Financial and Commercial Calculation Methods – 3CP, Corporate Social Responsibility – 3CP, Research Methodology – 2CP. The following courses were included in Part A: Organizational Theory – 3CP, Business Process Management – 6CP, Modern Research Methods – 4CP, Contemporary Issues of Strategic Management and Marketing – 4CP.
2. Changes were also introduced to Part B, changing the volume of Part B from 21CP to 32CP, and the volume of Part B1 from 17CP to 28CP. The division of professional specialization (B1) of Part B was cancelled and the following study courses were excluded: Business Process Management – 6CP, Human Resource Management – 6CP, Management System Analysis – 4CP, Modelling of Business Management – 4CP, Business English – 3 CP, Business German – 3CP, Scientific Seminars – 3CP, Enterprise Economics (special course) – 4CP, Planning and Controlling – 3CP, Economic Information Systems – 3CP, Managerial Accounting – 3CP, Information Technology in Project Management – 4CP, Project Quality and Risk Management – 3CP, Project Planning Methods – 4CP, Innovative Financial Instruments – 4CP, Securities Market Modelling – 4CP, Financial Mathematics and Statistics – 3CP, Actuarial Mathematics –

3CP, Management of Securities Portfolio – 3CP. The following courses were included in Part B: Scientific Seminars – 4CP, Quality Technologies and Management – 4CP, Economics and Management of Innovations – 4CP, Corporate Social Responsibility and Business Ethics – 4CP, Project Planning and Control – 4CP, Electronic Commerce and E-business – 4CP, Managerial Accounting – 4CP, Financial Analysis and Planning – 4CP, Risk Governance in Entrepreneurship – 4CP. The following courses were excluded from Part B2– Civil Law – 2CP, Ethics – 2.

In accordance with the approved changes, the curriculum was also changed by observing the required previous knowledge of the study courses and the previously acquired study courses. In the first semester of studies, compulsory study courses are acquired in the volume of 8 CP, in the second semester, in the volume of 10 CP, in the third semester, in the volume of 6 CP and the fourth semester is devoted to the elaboration of the Master Thesis.

In September of 2019, changes were introduced in the study program, not changing volumes of the parts. The following study courses were excluded from Part A: Theory of Economic Analysis – 3CP, Investment and Financing – 3CP, Contemporary Issues of Strategic Management and Marketing – 4CP, Psychology of Work Groups – 2CP. The following courses were included: Modern Business Models – 4CP, Investment and Financing – 4CP, Theory of Economic Analysis – 4CP. The following study courses were excluded from Part B: Quality Technologies and Management – 4CP, Managerial Accounting – 4CP, Risk Governance in Entrepreneurship – 4CP, Modern Business Models – 4CP. The following courses were included: Strategy and Change Management – 4CP, Marketing and Digital Transformation – 4CP. In (B2) compulsory elective study courses in humanities and social sciences, the study course “Psychology of Work Groups” – 2CP was included.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Already for over 25 years, Erasmus has been the most popular student exchange program in Europe. One of the goals of this program is to ensure mobility of students from European countries, promoting the development of universities in the context of the united Europe. Riga Technical University has been participating in the program since 1998, and the opportunities provided by Erasmus have been already used by more than 1000 students of RTU, including the ones studying at the academic Master study program “Entrepreneurship and Management”. During the recent six academic years, the mobility opportunities of Erasmus+ have been used by 23 students of the program.

In academic year 2013/2014: **Artūrs Burņins**, within the framework of Erasmus+ program, studied at Universidade Fernando Pessoa (Portugal), where the student acquired the following study courses: Organizational Knowledge Management (3CP), Quantitative Forecasting Methods (3CP), Strategic Management and Project Analysis (3CP), Corporate Research Methods (4CP), Information System and Decision Making Models (3CP), Product and Brand Management (4CP).

From the students studying in English, **Goyal Hemant** was at Otto von Guericke University Magdeburg, where he acquired the following study courses: Theory of Economics, Marketing Theory, Business Decision Making, Consumer Analytics and Consumer Awareness.

In academic year 2014/2015, student **Ismayilov Sanan** was at Technicka universitata v Liberici

(the Czech Republic), where he acquired the following study courses: Corporate Tax Planning, Strategic Management, Investment and Financing, Project Quality and Risk Management, Planning and Control, the Czech Language.

In 2014, a new support program of the European Union (EU) in the field of education, training, youth and sport Erasmus+ was initiated. The program lasts until 2020. Within the framework of Erasmus+, mobility of students for study and traineeship purposes will continue in a new quality. Such an opportunity was used by one MA student during his Erasmus+ traineeship at Kaunas University of Technology (Lithuania) when developing his Master Thesis.

In the autumn semester of academic year 2015/2016, the second-year MA students **Sintija Kurtiša** and **Regīna Zaiceva**, within the framework of Erasmus+ program, studied at Izmir University of Economics in Turkey, where they acquired the following study courses: Changes in Organizations (5CP), Corporate Financial Management (5CP), Management Economics (5CP), International Marketing (5CP), Russian Language (2CP), and Italian Language (3CP). Within the framework of ERASMUS+ program, in the autumn semester of academic year 2015/2016, **Lauris Zarāns** studied at Vrije Universiteit Brussel, Belgium, where he acquired the following study courses: Project Planning Models (4CP), Project Management (6CP), and European Economic Integration (6CP).

From the students studying in English, there were two students **Ravi Prithi** and **Sadasivam Palanivel Palanivel**, who studied within the framework of Erasmus+ program at Universidade Aveiro (Portugal) and acquired the following study courses: Research Methodology, Quantitative Methods in Management, Entrepreneurial Process Management, Human Resource Management, and Portugal Language for Foreign Students.

In the autumn semester of academic year 2016/2017, within the framework of Erasmus+ program, from the students studying in English, **Jayachandran Vinu** (Indian) studied at Technical University of Liberec (Technická univerzita v Liberci), the Czech Republic, from 19 September 2016 to 3 February 2017 and acquired the following study courses: Project Management and Control, Corporate Tax Planning, Investment and Financing, Planning and Control, Strategic Management; **Sayid Mohamed Ajvad** (Indian) studied at Technical University of Liberec (Technická univerzita v Liberci), the Czech Republic, from 19 September 2016 to 3 February 2017 and acquired the following study courses: Corporate Tax Planning, Investment and Financing, Planning and Control, Strategic Management, Entrepreneurship Management Modelling. **Moiseenko Taisiia** (Russian) studied at the University of Napoli «Parthenope» (Università degli studi di Napoli Italy) from 26 September 2016 to 3 March 2017 and acquired the following study courses: Corporate Tax Planning, Investment and Financing, Innovation Economics and Management, Planning and Control, Strategic Management. In the spring semester, within the framework of Erasmus+ program, **Schweinberger Stefan** (German) studied at the University of Barcelona (Universitat de Barcelona), Spain, from 1 February 2017 to 30 June 2017 and acquired the following study courses: Quantitative Methods in Management, Research methodology, Scientific Seminars, Management System Analysis. From the students studying in Latvian, the MA student **Anžela Šulca** studied at the State Educational Institution of Higher Education Moscow Region University of Technology (UNITECH), Russia, in the spring semester of academic year 2016/2017. She acquired the following study courses: Modern Management Systems (2CP) Modern Management Problems (2CP), Purposeful Project Management (1.5CP), Higher School Psychology and Pedagogy (1.5CP), Methods of Customer Satisfaction, Monitoring and Measurement (1.5CP) and Professional English Language (3CP).

The following RIMUO group students undertook Erasmus non-mandatory traineeship, with no credit points: **Agrums Raitis** – at Merili Tonismae (Estonia) from 5 June 2017 to 5 September 2017 and **Scacun Natalia** – at Stora Enso Eesti AS (Estonia) from 6 June 2017 to 7 September 2017.

The following AIMO group students undertook ERASMUS non-mandatory traineeship: **Ravi Prithi** – at Tetriberica SA (15 September 2016–14 February 2017, Portugal), **Sadasivam Palanivel** – at Acushla SA (15 September 2016–14 February 2017, Portugal).

In the spring semester of academic year 2017/2018, within the framework of Erasmus+ program, AIMO MA student **Chauhan Shiney Masuk** (India) studied at Otto von Guericke University Magdeburg, Germany, from 26 March 2018 to 31 July 2018 and acquired the following study course: Innovation Economics and Management. Regrettably, she has not passed other study courses.

Upon completion of his studies, the ERASMUS traineeship was undertaken by the AIMUO group graduate **Schweinberger Stefan** from 19 February 2018 to 30 June 2018.

The following AIMO group students undertook ERASMUS non-mandatory traineeship: **Aloyokhina Darya** – (1 March 2018–30 May 2018, Australia) and **Moiseenko Taisiia** – (15 January 2018–14 June 2018, Italy).

In the autumn semester of academic year 2018/2019, **Kirillovs Roberts** participated in Erasmus+ program at RTU partner university – Brno University of Technology, the Czech Republic, and acquired the following study courses: Intercultural Issues in the European Human Resources Management (3CP), Provision of Process Information (3CP), Project Management (3CP), Awareness of the Global and European Business Environment (3CP), Management Information Systems (3CP), International Finance (3CP).

In academic year 2018/2019, within the framework of Erasmus+, student **Ponmalar Madhavan** studied at the University of Bergamo (Italy) and acquired the following study courses: Quantitative Methods in Management, Management Accounting and Project Analysis, Project Planning and Control, Theory of Economic Analysis and Business Process Management.

Recognition of the study courses acquired during the mobility period is coordinated with the study program director prior to starting the mobility. In the event a student returns from the mobility with not passed study courses, such issues are solved at the Council meeting of the Institute of Business Engineering and Management

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

Implementation of the study program is related to the material and technical basis and infrastructure of RTU and the Faculty of Engineering Economics and Management (FEEM). During their studies, students are provided with the latest study books, which are available at RTU Central Library, or the textbook subscription. To ensure the information base of the study program, the up-

to-date industry literature is reviewed annually and ordered to be in line with the study courses included in the program, for example, in recent years the following latest books have been purchased:

- Research Methods: The Essential Knowledge Base / William M. Trochim, James P. Donnelly, Kanika Arora. (2016);
- Marketing 4.0: Moving from Traditional to Digital / Philip Kotler, Hermawan Kartajaya, Iwan Setiawan (2017);
- Digital Marketing Excellence: Planning and Optimizing your Online Marketing / Dave Chaffey and P.R. Smith. (2017);
- Creativity for Innovation Management / John Bessant, Ina Goller.(2017);
- Creativity and Strategic Innovation Management : Directions for Future Value in Changing Times / Malcolm Goodman and Sandra M. Dingli.(2017);
- Innovation Management and New Product Development / Paul Trott. (2017);
- Organization Change: Theory and Practice / W. Warner Burke, Teachers College, Columbia University (2018);
- Digital Marketing Fundamentals: From Strategy to ROI / Marjolein Visser, Berend Sikkenga, Mike Berry (2018);
- Strategic Marketing Management / Alexander Chernev, Kellogg School of Management, Northwestern University; foreword by Philip Kotler (2018);
- The Business Models Handbook: Templates, Theory and Case Studies / Paul Hague. (2019), Group dynamics / Donelson R. Forsyth (2019);
- Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization / Andrew Crane, Dirk Matten, Sarah Gloze, Laura J. Spence (2019);
- Organizational Behavior / Stephen P. Robbins, San Diego State University, Timothy A. Judge, the Ohio State University (2019).

RTU students and the academic staff have electronic subscribed databases available at RTU Central Library, as well as temporary trial databases, for instance, EBSCO database, SCOPUS (published by Elsevier), SPRINGERLINK, SCIENCEDIRECT , etc. Information about databases is available on all computers registered in the Central Library, branch libraries, RTU computer network and on RTU portal ORTUS (Resources). Within the framework of several study courses, for instance, “Modern Research Methods”, “Investment and Financing”, etc., students have to analyze scientific articles, and the electronic database EBSCO subscribed by RTU Central Library is used by students most often. Since 2017, temporary rights have been granted (2 places x1 month and 1 place x 2 months) for the Bloomberg terminal, which is used by the academic and scientific staff to perform research. Students actively use this database within the framework of the study course “Investment and Financing”, when performing individual work for evaluating capital investments. The academic staff also have Firmas.lv and Amadeus databases available, which can be used both for studies and for research purposes.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)

#### 4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.

The composition of the academic staff has decreased. At the start of the reporting period, in academic year 2013/2014, 23 professors, associate professors and assistant professors were involved in the program implementation; in academic year 2015/2016, the academic staff composed 20 persons, whereas in academic year 2017/2018, there were 16 persons involved as the academic staff. The reduction in the composition of the academic staff is related to the introduced changes in the study program; as a result, the number of study courses has decreased as well. At present, in academic year 2019/2020, 10 members of the academic staff, who have a Doctor degree and RTU as the main place of occupation, are involved in the program implementation.

#### 4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.

Four professors (Prof. E.Gaile-Sarkane, Prof. N.Lace, Prof. I.Lapiņa, Prof. M.Platonova) and two associate professors (asoc. prof. D. Sceulovs, asoc. prof. K.Oganisjana) elected at RTU participate in academic positions in the implementation of the compulsory part and the limited elective part of the academic master's study program "Entrepreneurship and Management", thus the academic staff complies with the requirements of Section 55, Paragraph one, Clause three of the Law on Higher Education.

**Inga Lapiņa**, Dr.oec., professor, with over 20 years of experience in higher education, research and project management. She ensures research components in her work with students through participation in scientific conferences and development of publications on topics, such as the impact of cultural factors on organizational development, management of intellectual capital, managerial expertise in the management of intercultural teams, human resources management models, knowledge management and corporate social responsibility aspects, etc. Students learn the realities of the sector needed for a real business by using a variety of creative approaches and innovative thinking to develop the entrepreneurial capacity.

**Elīna Gaile-Sarkane**, Dr.oec., professor, leading researcher, since 2000 has been the author of 130 scientific publications related to topics such as the use of the electronic environment to increase business competitiveness, cross-sectoral methodologies for developing business skills, etc. She has participated in numerous conferences and written scientific articles published in the Web of Science and/or SCOPUS databases. She has also participated in various projects. She is a co-owner of two patents: a method for separating and wintering butter and similar substances, and a device

for implementing the technique, as well as a holder for transporting unshaven paintings. She has experience in supervising Doctoral Theses; five Doctoral Theses have been defended under her supervision.

**Natalja Lāce**, Dr.oec., professor, with over 25 years of experience in research and project management. The research component – scientific and applied research relates to theoretical and practical solutions to the financial stability of a company, performance of small and medium-sized enterprises, entrepreneurial financial literacy, achievement of the sustainability of shareholders on the stock markets of Central and Eastern Europe, etc. The research results are presented at conferences and published in editions indexed in the Web of Science and SCOPUS.

**Deniss Ščulovs**, Dr.oec., asoc. professor. Since 2009, he has written 75 scientific publications that examine issues related to the use of the electronic environment to boost business competitiveness, digital marketing, e-commerce and business models. His professional (working as a marketing manager for more than 6 years) and research experience ensure knowledge of the sector topics and promote the learning and usability of modern study methods.

**Karine Oganisjana**, Dr.oec., Dr.paed., asoc. professor. Since 2011, she has written 25 scientific articles, the subject of which is linked to social innovation challenges and solutions in Latvia, opportunities and problem-based training to promote entrepreneurship of university students, etc. Professional and research experience provide students with information on the principles of the organizing a social science research and develop competences necessary for conducting research.

**Anita Straujuma**, Dr.oec., assistant professor. Education: Master degree in computer science, Master degree in Business Administration (MBA), Doctoral degree in economics. Professional experience: activities in the IT sector for more than 10 years; participation in the establishment and management of the leading medical software manufacturer in Latvia; more than 25 years of practical experience in management of public organizations; participation in international research projects and conferences; experience in organizing international conferences; participation in the creation of a scientific journal and development of pedagogical experience in the economic sector.

**Nadežda Koleda**, Dr.oec., assistant professor, researcher whose scientific and applied research relates to theoretical and practical solutions to the financial stability of an enterprise, financial analysis and planning issues, entrepreneurial financial literacy. She has a total of 26 publications starting from 2007. Nadežda Koleda has participated in many conferences with reports and published scientific articles indexed in the Web of Science and/or SCOPUS. The practical activities and interests of Nadežda Koleda relate to the provision of core performance indicators for organizations (KPI assurance), quality management, change management, improvement and deployment of business processes and other issues. Nadežda has experience in managing financial projects, budgeting and auditing, training and coaching, as well as experience in customer and operational support while operating in a multicultural environment.

**Ieva Andersone**, Dr.oec., assistant professor. Education: Doctor in economics in the business management subsector. Professional experience: for more than 15 years, pedagogical activities as a scientific assistant, lecturer, assistant professor and researcher. Research components in working with students are ensured by participation in scientific conferences and development of publications. She participates in RTU teaching training upgrade courses and the FEEM academic conference on the integration of teaching methods and scientific work into the study process. In addition, participation in various seminars ensures knowledge about the latest trends in the sector, as well as encourages the development of new methods that enable students to learn the sector-specific topics.

**Iveta Ozoliņa-Ozola**, Dr.oec., assistant professor. Her research experience is related to staff

variability issues and management solutions in companies, human resource management roles and group psychology. She has experience in various international human resources management studies, for example, “CRANET Study: Human Resources Management Practice in Large Companies of Latvia” provides knowledge of the latest trends and enables one to share experience and knowledge about the workgroup processes.

**Marina Platonova**, Dr.philol., professor at RTU Faculty of E-Learning Technologies and Humanities since 2017. Her research relates to terminology management. She has participated in scientific conferences and written publications on topics such as the recognition and interpretation of references in technical texts, metonymy in different forms of communication, rhetorical strategies in the context of professional communication, etc

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The academic staff work actively in editorial boards of international journals and organizing committees of international conferences such as EURAM (European Academy of Management), ICEM (International Conference in Economics and Management), the World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI), etc.

The Institute of Business Engineering and Management has a wide range of partners with foreign universities, research institutes, associations, professional organizations and businesses: The NICE Network (New Initiatives and Challenges in Europe); Brno University of Technology, the Czech Republic; College of Economics and Business Administration at Kyungpook National University, Daegu, Korea; European University Cyprus; Kaunas University of Technology, Lithuania; Tallinn School of Economics and Business Administration, Tallinn University of Technology, Estonia; Tomas



Bata University in Zlin, the Czech Republic; Valladolidas University, Spain; Vilnius Gediminas Technical University, Lithuania; Warsaw University of Technology, Poland; Rotterdam Business School of Rotterdam University of Applied Sciences, the Netherlands, and other universities and research institutions.

The academic staff have scientific publications in such international databases as SCOPUS, Thompson Reuter, Elsevier, etc.

The academic staff of the program update study courses every year and introduce the latest methods and principles of the study organization in the study process increasingly more widely. The study process is developed as an active, student-binding process, including lectures, seminars, discussions, handling situations and practical tasks, individual, group work and research, as well as guest lectures.

Examples of the application of the scientific research results of the teaching staff in the study process:

The results of the National Research Program "Economic Transformation, Smart Growth, Governance and Legal Framework for the State and Society for Sustainable Development – a New Approach to the Creation of a Sustainable Learning Community (EKOSOC-LV)" are used in the study course "IEU524 Modern Research Methods":

Oganisjana, K., Grīnberga-Zālīte, G., Surikova, S., Kozlovskis, K. et al. (2019). Sociālā inovācija: izaicinājumi un risinājumi Latvijā / Social Innovation: Challenges and Solutions in Latvia. Zin. red. Karine Oganisjana. Rīga: RTU Izdevniecība.

To conduct research projects together with the teaching staff and researchers also Master's students of the study program were involved in collecting data, analyzing them, interpreting the results, writing scientific articles and a monograph and presenting them at international scientific conferences. "Session's Best Paper Award" has been obtained from the "21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017" for the research paper "Barriers to Social Innovation and Ways of Overcoming Them in Latvia", Orlando, Florida, USA, 08-11.07.2017. Students are among the authors of the monograph "Social Innovation: Challenges and Solutions in Latvia".

The study materials developed within the framework of the project "Enhancing Latvian Citizens' Securability through Development of the Financial Literacy" financed by the Latvian Council of Science are used in the study course

IEU515 Financial analysis and planning":

Uzņēmēju finanšu lietpratība finansiālās stabilitātes pārvaldībā/ N. Koleda, N. Lāce, K. Oganisjana, proj. vad. N. Lāce. – Rīga : RTU izdevniecība, 2013.-107.lpp. ISBN 978-9934-10-527-2

The study course "Modern Business Models" integrates research: "Competitiveness definition's and concepts qualitative content analysis, owner-managed company: An Advantage or a Challenge?", "Theoretical approach to the internationalization of SMEs: Future research prospects based on bibliometric analysis", "Challenges of sustainable company development: Case of craft business in Latvia". The results of the research are integrated in the following study course topics - Modern approaches to business modeling; Evaluating the effectiveness of business models; E-business models and their use.

Research "Are IT Skills Helpful to Manage Processes in a Small Business?", "Impact of e-environment on SMEs business development", Digitization of public procurement: Barriers for innovation, "Digital economy ecosystem and its elements, How to measure the efficiency of the

digital marketing channels? " the results are integrated in the study course "Marketing and Digital Transformation" in the topics - Digital Transformation, its impact on business models; Modern strategic marketing; integrated marketing and communication; Modern market analysis methods in the digital environment; Types and roles of communication channels; Determining and evaluating the efficiency criteria of communication channels; Digital marketing. Types of digital media, roles and possibilities of marketing technologies, etc.

Improving management competences on Excellence based Stress avoidance and working towards sustainable organizational development in Europe – 588315-EPP-1-2017-ES-EPPKA2-KA. IMPRESS goal is to provide coaching/teaching modules and self-assessment tools, which allow organisations to identify risk factors and implement preventive practices, individual and organisational solutions for stressors at organisational, team and individual level. RTU teaching staff is involved in the project Elīna Gaile-Sarkane, Inga Lapina, Deniss Sceulovs and the research results are approbated in study courses "Organizational Theory"; "Psychology of Work Groups" and "Integrated Talent Management".

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The academic staff involved in the program cooperate within the framework of the study courses in order to ensure the consistency and continuity of the study courses. When planning the study courses by semesters, in the first semester, students acquire the study course "Modern Research Methods" – this is one of the most important courses where students acquire knowledge and skills in research that encourage students to start their research activities. In the third semester, students have a study course "Research Project in Business Management". In the course of the project implementation, students perform a research project in order to be prepared better for their Master Thesis. In the course of the project, students analyze relevant scientific literature, draw up a plan of research, conduct research and prepare scientific publications for presentation and defense at the student scientific conference. The obtained results of the research serve as a basis for the development of the Master Thesis. Both of the two courses mentioned are provided in a consistent manner and the academic staff cooperate in linking the mutual content and evaluation of the study courses.

In academic year 2018/2019, there were 90 students, and 10 members of the academic staff provided the study courses; thus, the ratio was 9:1.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5-IMU0.pdf	5.pielikums-IMU0.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6-IMU0.pdf	6.pielikums-IMU0.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8-IMU0.pdf	8.Pielikums-IMU0.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9-IMU0.pdf	9.pielikums-IMU0.pdf
Descriptions of the study courses/ modules	Appendix 10-IMU0.zip	10.pielikums-IMU0.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-IMU0.pdf	Diploms-IMU0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement between LLU and RTU 2019.pdf	Vienošānās_LLU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under <a href="http://www.europass.lv">www.europass.lv</a> ), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	AGREEMENT_2019_EN.pdf	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Uzņēmējdarbība un vadīšana_IMU0.pdf	Uzņēmējdarbība un vadīšana_IMU0.pdf

# Entrepreneurship and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Entrepreneurship and Management</i>
Education classification code	<i>41345</i>
Type of the study programme	<i>First level professional higher education study programme</i>
Name of the study programme director	<i>Iveta</i>
Surname of the study programme director	<i>Ozoliņa-Ozola</i>
E-mail of the study programme director	<i>Iveta.Ozolina-Ozola@rtu.lv</i>
Title of the study programme director	<i>Docente, Dr. oec.</i>
Phone of the study programme director	<i>67089420</i>
Goal of the study programme	<i>The aim of the study programme is to provide an opportunity to obtain professional competences in entrepreneurship with in-depth specialisation in one of three qualifications selected by the student – marketing and sales specialist, personnel specialist or accountant , and to develop professional ethics and social responsibility in students, as well as to create a basis for further studies to obtain competences at a higher level.</i>
Tasks of the study programme	<p><i>Objectives of the study programme:</i></p> <ul style="list-style-type: none"> <li><i>- to develop analytical critical thinking in students and to promote interest in the processes taking place in the professional area describing and analysing the situation in the company and development trends in the professional area (in marketing and sales, personnel management or accounting);</i></li> <li><i>- to provide comprehensive and specialised knowledge, to develop professional skills in one of the specialisations of the study programmes selected by the student, achieving appropriate academic performance and learning outcomes in each course;</i></li> <li><i>- to develop students' skills in identifying problems, formulating objectives and their resolution, offering solution to professional problems within the scope of study courses and in the graduation paper;</i></li> <li><i>- to develop communication and cooperation skills of students by promoting the use of these skills in the study process and further in their practice.</i></li> </ul>

Results of the study programme	<p><i>Upon mastering the study programme the graduate shall be able:</i></p> <ul style="list-style-type: none"> <li>- to demonstrate comprehensive and diverse knowledge and understanding of specific facts, principles, processes and concepts necessary for the performance of work tasks in standard and non-standard situations in general management, business processes or administrative management;</li> <li>- to select necessary information, formulate, describe and analyse practical problems in their profession and, based on an analytical approach, to carry out practical tasks in both predictable and changeable environment, and to find effective solutions to problems in general management, business processes or administrative management;</li> <li>- to cooperate with stakeholders and institutions in a multicultural environment, taking into account the principles of professional ethics for themselves and others, to discuss and reason professional matters and solutions with colleagues, customers and management;</li> <li>- to demonstrate awareness of the role of their profession in ensuring and development of general management, business or administrative processes, to take responsibility for the performance and quality of the work performed, to evaluate and improve their own professional activities and those of other persons.</li> </ul> <p><i>Upon mastering the study programme specialisation "Marketing and Sales" the graduate shall be able:</i></p> <ul style="list-style-type: none"> <li>- to organise and perform market research, to analyse market research results,</li> <li>- to develop a trade plan and to organise its implementation, to take measures for promotion of products on the market, to determine the price of goods;</li> <li>- to prepare and provide information to the buyer on the goods or services to be sold, to conduct negotiations on conclusion of a contract on behalf of a seller or buyer, to buy and sell products, to establish contacts between buyers and sellers;</li> <li>- to help to ensure sales operations in the company in compliance with the requirements of regulatory enactments of the Republic of Latvia, as well as international documents binding to the Republic of Latvia.</li> </ul> <p><i>Upon mastering the study programme specialisation "Personnel Management" the graduate shall be able:</i></p> <ul style="list-style-type: none"> <li>- to keep records of personnel, to ensure collection, systematisation and analysis of personnel data;</li> <li>- to conduct the personnel recruiting process, to organise onboarding of new employees in the company, to organise personnel training, to participate in the development and maintenance of the system of performance appraisal and competences of personnel, to participate in the creation of system of incentives and wages of employees;</li> <li>- to ensure that the requirements of regulatory enactments regulating labour employment relations are complied with;</li> <li>- to advise employees.</li> </ul> <p><i>Upon mastering the study programme specialisation "Accounting" the graduate shall be able:</i></p> <ul style="list-style-type: none"> <li>- to plan, organise and manage full accounting of financial operations of a company, institution and/or organisation, to create an accounting system and to draw up accounting organisation documents, to register and enter economic transactions, to calculate taxes and duties, wages;</li> <li>- to evaluate and register long-term investments, current assets, equity and liabilities, and provisions, to plan, organise and perform stocktaking, to independently develop specific financial flow sections, to summarise, plan, control financial resources, incl. taxes, distribution, to supervise debtors and creditors;</li> <li>- to ensure compliance with and application of regulatory enactments and international regulations effective in the Republic of Latvia in the area of accounting</li> </ul>
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Final examination upon the completion of the study programme	<i>Qualification paper</i>
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## Study programme forms

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Accountant</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Accountant</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Accountant</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Marketing and Sales Specialist</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Personnel Specialist</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Marketing and Sales Specialist</i>

#### Places of implementation

Place name	City	Address
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Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050
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### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Personnel Specialist</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Marketing and Sales Specialist</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	<i>Personnel Specialist</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050



### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

Since the issuance of the previous accreditation form of the study direction, the following indicators of the study programme have been changed: place of implementation, the degree/professional qualification to be awarded, the language in which the study programme is implemented. The content of the study programme has been updated with regard to the aim, objectives and learning outcomes of the study programme.

The place of implementation of the study programme is Riga, not including RTU branches. The professional qualifications “insurer” and “logistics specialist” have been excluded from the study programme and professional qualification “personnel specialist” has been included therein. The language in which the study programme is implemented is Latvian, without the study programme being implemented in English.

The insertion of the mentioned changes was facilitated by trends in the number of the students (see Chapter 1.2), consideration of various risks for the qualitative ensuring of the study programme. Changes in the formulations of the aim, objectives and learning outcomes of the study programme were mainly due to the orientation towards the study programme development (see Chapter 1.3).

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

The summary of statistical data on students in the reporting period, i.e. from the study year 2013/2014 to 2018/2019, is provided in Annex 5. In accordance with this summary of statistical data, the number of students in the first level professional higher education study programme “Entrepreneurship and Management” in Riga has been variable. The study year 2016/2017 had the smallest number of students, which is generally explained by the fact that no students were enrolled in the 1<sup>st</sup> year of studies in this academic year. However, a significant increase in the number of students was observed in the subsequent years of studies, as the results of enrolment of first-year students improved. The number of students in the study year 2018/2019 was 42 (incl. 28 first-year students), all of them were part-time extramural learning students studying by their own means. In the reporting period, the highest number of students was at the beginning of the reporting period, i.e. in the study year 2013/2014, when the number of students was 58. This is mainly explained by the highest number of government-funded students in that study year (14 of them together in the 1<sup>st</sup> and 2<sup>nd</sup> year). In total, when there were full-time intramural learning

students in the reporting period, most of them (63-75%) were government-funded. From the study year 2014/2015, no government-funded places were granted for the 1<sup>st</sup> year of studies and no full-time students were enrolled in the studies. Since the study year 2016/2017, students in all years were part-time extramural learning students studying by their own means. The analysis of student drop-outs show that most students are expelled during the 1<sup>st</sup> year of studies, and the most frequent cause was bad academic performance.

In the Cesis branch, students were enrolled in full-time studies in the study year 2015/2016. This branch enrolled students only in full-time intramural studies. Since the study year 2015/2016, the number of students has increased from 5 to 18, i.e. more than 3.5 times. All the students, except two (one in 2017/2018 and one in 2018/2019), were government-funded. In the Cesis branch, students dropped out during the 1<sup>st</sup> year of studies for various most common reasons – on their own volition, due to bad academic performance, because they have not commenced studies after enrolment.

In the Liepaja branch, both full-time and part time intramural learning students were enrolled in the reporting period. The dynamics of the number of students evidences of a rapid decline in the number of students. There were twice as many students in the branch in the study year 2013/2014 than in Riga, however, the situation in the study year 2018/2019 was opposite. This is partially explained by the fact that no part-time students have been enrolled since the study year 2016/2017. In total, in the study years 2016/2017 – 2018/2019 most of students (84-89%) were government-funded. The analysis of student drop-outs shows that most students are expelled during the 1<sup>st</sup> year of studies, mostly due to bad academic performance.

In the reporting period, no government-funded places were provided to the first level professional higher education study programme “Human Resources Management”, with the exception of the study year 2013/2014, when government-funded places were provided to five of six full-time intramural learning second-year students in Riga. Study programme financing conditions and specifically lack of government-funded places to a certain extent influenced the dynamics in the number of enrolled students. The number of enrolled students in Riga has significantly decreased in the years of studies 2014/2015 and 2015/2016. No first-year students were enrolled in those years of studies. Even before that, only two students were enrolled in the first year of studies in 2013/2014. However, starting from the study year 2016/2017, the number of students has grown significantly, the results of enrolment of first-year students have considerably improved. The number of students in the study year 2018/2019 was 46 (incl. 24 first-year students), all of them were part-time students studying by their own means. Most student drop-outs occur during the first year of studies due to bad academic performance or on their own volition.

In the Ventspils branch, students were enrolled both in full-time and part-time studies in the study year 2014/2015 (one and two students respectively). By the end of the reporting period, the number of students has grown from 3 to 18, i.e. more than 6 times. However, it should be noted that the total number of students enrolled in the first year of studies has always been 3-5, and only in 2018/2019, surprisingly, 12 first-year students were enrolled. In the study year 2018/2019, all students in the branch were part-time extramural learning students. When analysing student drop-outs in the branch, it may be concluded that this almost never happens.

If we compare the dynamics of the number of students in both study programmes “Entrepreneurship and Management” and “Human Resources Management”, the study programme “Entrepreneurship and Management” had the highest number of students in part-time extramural studies. The unstable number of students and numerically small student groups, in particular in the study programme “Human Resources Management” was one of the observed problems creating financial risks for qualitative provision of the programmes. This situation was one of the reasons for

closure of the study programme “Human Resources Management” and adding of the specialisation “Personnel Management” to the study programme “Entrepreneurship and Management”.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The scope, mandatory content, duration of implementation of the study programme “Entrepreneurship and Management” have been created in accordance with Regulations of the Cabinet of Ministers No. 141 of 20 March 2001 “Regulations regarding the State Standard for First Level Professional Higher Education”, which would allow to issue a diploma of first level professional higher education to the graduate and the professional qualification in accordance with the specialisation selected by the student.

The content of study programmes focuses on the preparation of specialists for work in the entrepreneurship environment. Field-specific study courses of the study programme are broken down into three specialisations – “Marketing and Sales”, “Personnel Management” and “Accounting”, which generally refer to ensuring of entrepreneurship and specifically to functional areas of company management. Therefore, the name of the study programme – “Entrepreneurship and Management” – sufficiently covers the focus of the programme and specialisation.

Specialisations of the study programme are created for professions, which refer to level 5 of the Latvia Qualifications Framework (LQF) in the structure of qualifications of entrepreneurship, financial accounting and administration (wholesale, retail and commerce), i.e. they correspond to the first-level professional higher education or college education. In accordance with the Regulations of the Cabinet of Ministers of the Republic of Latvia No. 141 “Regulations regarding the State Standard for First Level Professional Higher Education” of 20 March 2001, the choice and content of study courses are determined by profession standards; therefore, each specialisation offered in the study programme has a composite set of study courses, which would correspond to the respective actual profession standard, i.e. the profession standard of a marketing and sales specialist, a personnel specialist or an accountant.

Based on the fulfilment of the requirements of the state standard of the first level professional higher education and the profession standard, graduates of the study programme obtain a diploma of first level professional higher education and, in accordance with the selected specialisation, the qualification of a marketing and sales specialist, a personnel specialist or an accountant.

The aim of the study programme includes a) an indication to the general field and general competences (“...to provide an opportunity to obtain professional competences in entrepreneurship...”), b) an indication to specialisation possibilities in one of the three professional qualifications (“...with in-depth specialisation in one of three qualifications selected by the student – marketing and sale specialist, personnel specialist or accountant ...”), c) an indication to the general advancement to ensuring education quality (“...to create a basis for further studies to obtain competences at a higher level.”), d) an emphasis on the characteristics of LQF level 5 like professional ethics and social responsibility (“...to develop professional ethics and social responsibility in students...”).

Four objectives of the study programme arise from the formulation of the aim of the study

programme. Each objective includes an indication to the development of general and professional knowledge, skills and competences of the student, taking into account the description of respective knowledge, skills and competences corresponding to LQF level 5.

The learning outcomes of the study programme specify in what way objectives of the study programme are fulfilled and the aims of the study programme are achieved. Learning outcomes are broken down into two main groups. The first group consists of the common learning outcomes for the three specialisations, which are formulated using the description of respective knowledge, skills and competences corresponding to LQF level 5 as a basis and the general characteristics of field-specific professions in business, finances, accounting, administration (wholesale, retail and commerce). The second group consists of the specialisation-specific learning outcomes. Specifically, the second group is broken down into three subgroups – for each specialisation the learning outcomes should be formulated separately, using summaries of main objectives of professional activity of a marketing and sales specialist, personnel specialist and accountant taken from the respective profession standards.

Enrolment to the study programme takes place in accordance with the enrolment rules approved by the RTU Senate. Since the study programme ensures LQF level 5, its applicants are those whose education level corresponds to at least LQF level 4, i.e. who have obtained a document attesting to completed secondary education. The study programme has no individual, additional enrolment requirements; the enrolment requirements are the same as determined for all undergraduate studies in the study programmes of the RTU Faculty of Engineering Economics and Management. These general requirements lay an emphasis on the results of the applicant's centralised examinations and/or annual marks in exact science subjects and languages. Thus, conditions have been created to enrol students with sufficiently good both analytical and communicative skills. These skills will further be applied and developed in the study process.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The study programme has been created in accordance with the Regulations of the Cabinet of Ministers of the Republic of Latvia No. 141 "Regulations regarding the State Standard for First Level Professional Higher Education" of 20 March 2001. The comparison of indicators of the study programme with requirements of the state education standard is provided in Annex 6. When we compare indicators of the study programme with the state education standard, it may be concluded that all the requirements (i.e. the amount, duration of implementation of the study programme, parts of the programme and their amount, the number of contact hours, the mandatory content, compliance with the requirements of the Environmental Protection Law and the Civil Protection and

Disaster Management Law, the degree to be obtained, the possibilities of continuing studies, basic principles and procedure of evaluation of mastering of the study programme, description of study internship) are complied with.

The content of the study programme has been created taking into account the requirements of profession standards. Since the programme includes three specialisations (“Marketing and Sales”, “Personnel Management” and “Accounting”) and therefore three qualifications to be obtained (depending on the specialisation selected by the student), the inclusion of study courses in the study programme was adapted to the requirements of three profession standards – the profession standard for a marketing and sales specialist, the profession standard for a personnel specialist and the profession standard for an accountant (fourth level qualification). The comparison of the study programme with requirements of three profession standards is provided in Annex 7. When we compare the content of study courses included in the study programme with profession standards, it can be concluded that the content of the study courses covers mastering of knowledge necessary for the performance of main objectives of professional activity for all the three professions. It should be recognised that the study programme is more focused on entrepreneurship and company operations, where students master not only special competences of the selected profession, but also get an insight into company operations, business analytics and planning, as well as develop business thinking. Such competences are expected and highly appreciated by employers for the specialist to be able to find his or her way in the entrepreneurship environment and be a professional partner.

In accordance with the results of the research of the World Economic Forum “*The Future of Jobs Report 2018*” (World Economic Forum, 2018) the demand for marketing and sales specialists, as well as personnel specialists in the world, and specifically in Eastern Europe, will remain high in the foreseeable future. The demand for accountants will change in favour of those, who are able to do financial analytics and provide recommendations to entrepreneurship support and development.

Self-assessment work groups were created in order to ensure the compliance of content of the study programme with the needs of the relevant industry and labour market, and with science trends. The work group for specialisations “Marketing and Sales” and “Accounting” included two industry specialists (Karina Marinska – senior desk officer of the Road Division of the Road Traffic Department of the Ministry of Transport of the Republic of Latvia; Aivis Sokins – project manager of SIA “Roadex”), one student representative (Gints Zālītis) and three academic personnel representatives (lecturers Leonards Budņiks and Inga Eriņa, assistant professor Nadežda Semjonova). The work group for the specialisation “Personnel Management” included two industry representatives (Laura Langenfelde – head of the Personnel Division of SIA “Later Ltd”; Laura Kalniņa – personnel manager of SIA “KPMG Baltics”), three student representatives (Rūta Līflande, Helēna Elza Smilgaine, Rihards Štalts) and two academic staff representatives (associate professor Deniss Ščeuļovs and researcher Mikus Dubickis). Necessary changes to the learning outcomes of the study programme and its study courses were discussed at meetings of the self-assessment work groups and in individual talks with members of the work group, and proposals for replacement of individual study courses were made.

The compliance of study courses of the study programme with industry and labour market trends is facilitated by involving visiting lecturers from industry specialists into study courses (see section Teaching Staff). Furthermore, the compliance with development trends in science is facilitated by all the teaching staff involved in the study programme having at least a Master’s degree and 43% of teaching staff having a doctoral degree. The descriptions of new study courses, as well as the updated descriptions of existing study courses are approved not only if they correspond to industry and labour market trends, but also if they reflect scientific achievement and are fit for the level of the study programme. The assessment of the knowledge of teaching staff of latest scientific and

technological achievements was one of the purposes of observation of lectures, which took place in the study years 2015/2016 – 2018/2019.

The matters related to the improvement of the study programme were revised and discussed at council meetings of the Institute of Business Engineering and Management and meetings of the Study direction “Management, Administration and Real Estate Management” commission.

Several significant changes have been made to the structure and content of the study programme in the reporting period. In order to fulfil all the requirements of the state education standard with regard to the compliance of the study programme with the requirements of the Environmental Protection Law and the Civil Protection and Disaster Management Law, in 2015 a study course ICA105 Civil Defence 1 CP was included in the part of compulsory study courses (A) of the study programme. At the same time, study courses IET102 Microeconomics 3 CP and IET111 Macroeconomics 3 CP were replaced with ITA704 Economics 4 CP, which includes the content of both microeconomics and macroeconomics. These changes have altered the amount of the compulsory part from 31 CP to 30 CP, as well as the amount of the part of compulsory elective study courses (B) from 25 CP to 26 CP, incl. the amount of field-specific study courses (B1) from 19 CP to 20 CP and the amount of professional specialisation study courses to be mastered within each specialisation from 15 CP to 16 CP. Study course IÄS705 International Trade 2 CP was excluded from the list of study courses for specialisation “Marketing and Sales Economics” in the part of field-specific study courses (B1), the content of which largely overlaps with the content of other study courses for this specialisation.

In order to make the content of the study programme closer to the requirements of profession standards and the level of preparedness of students, in 2017 several studies courses in the part of compulsory study courses (A) of the study programme were replaced: IUE218 Computer Training (basic course) 3 CP was replaced with IVZ749 Business Intelligence Technologies I 3 CP; DIM109 Mathematics 4 CP was replaced with DMS721 Mathematics 5 CP; IRO317 Organisation and Planning of Business 4 CP was replaced with IVZ760 Enterprise Management 4 CP; IÄS207 Economic Statistics 2 CP was replaced with IÄS205 Statistics 3 CP. Thus, the amount of the part of compulsory study courses (A) changed from 30 CP to 32 CP. At the same time, the amount of the part of compulsory elective study courses (B) reduced from 26 CP to 24 CP, replacing study courses HVD155 English 4 CP and HVD154 German 4 CP with HGD403 English 2 CP and HGD521 German 2 CP, respectively.

In 2019, taking into account that no students were enrolled in the specialisation “Insurance” and that due to the specifics of the specialisation “Business Logistics and Transport Economics” it would be feasible to implement it as a separate study programme, it was decided to exclude from the study programme these two specialisations, the study courses included in them in the part of field-specific study courses (B1) and also the study courses VIA192 “Special Course of Transport English” 2 CP and VIV193 “Special Course of Transport German” 2 CP in part B6 “Languages”. Therefore, the professional qualifications “insurer” and “logistics specialist” have been excluded from the study programme.

Along with closing of the two specialisations, it was decided to include the specialisation “Personnel Management” in the study programme, taking it over from the first level professional higher education study programme “Human Resources Management”, which is supposed to be closed. Respectively, the specialisation “Personnel Management” and its study courses amounting to 16 CP (IUV223 “Personnel Management” 5 CP; IVZ711 “Personnel Records” 2 CP; IUV224 “Managerial Psychology” 3 CP; IUV373 “Personnel Management (study project)” 2 CP; IUV229 “Economics of Human Resources” 2 CP; IUV433 “Work Motivation Theories” 2 CP) were included in the part of field-specific study courses (B1) of the study programme. Respective changes have been made to

part B6 “Languages”: study courses VIA188 “Human Resources Management Special Course in English” 2 CP and VIV188 “Human Resources Management Special Course in German” 2 CP were included. Therefore, the professional qualification “personnel specialist” has been included in the study programme.

Adding the specialisation “Personnel Management” to the study programme is justified by the fact that, first, its content for mastering of general knowledge, skills and competences necessary for a profession of a personnel specialist is implemented also within the existing study programme. Second, by combining the specialisations “Marketing and Sales Economics”, “Economics, Accounting and Taxes” and “Personnel Management” in one study programme, more secure conditions for the selection of a future profession are created for students: in the first year of studies they get an insight into entrepreneurship and the importance of its functional areas – marketing, personnel management and accounting, in the second year of studies the student may choose the appropriate specialisation. Third, the number of students and therefore also income from student tuition fees for studies would increase, which would, in turn, reduce financial risks for qualitative provision of the study programme.

Then, further improvements were made in order to provide uniform content of a higher quality meeting the state education standard and profession standards in the study programme. In the part of compulsory study courses (A), study course DMS721 “Mathematics” 5 CP was replaced with DMS710 “Mathematics” 2 CP, IUE221 “Introduction to the Speciality” 1 CP was replaced with IUI708 “Introduction to the Study Field” 1 CP. Study courses IUV209 “Accounting” 3 CP, IUE407 “Marketing” 3 CP and IUV106 “Business Communication” 2 CP have been excluded, because the content of these courses was moved to the part of compulsory elective study courses (B). The part of compulsory study courses (A) was supplemented with the following study courses: IUE403 “Enterprise Economics” 3 CP, IVZ746 “New Product Design and Development Methodology” 4 CP, IVZ771 “Work Environment and Ergonomics” 2 CP and IVZ796 “Social Responsibility and Business Ethics” 2 CP.

The part of humanities and social science study courses (B2) in the amount of 2 CP was included in the part of compulsory elective study courses (B) by including study courses IUV106 “Business Communication” 2 CP and HFL330 “Business Etiquette” 2 CP. At the same time, the amount of the part of field-specific study courses (B1) reduced from 20 CP to 18 CP at the expense of reducing the amount of common study courses for specialisations, i.e. from 4 CP to 2 CP. Study courses IUE128 “European Union Organisations and Functions” 2 CP, VIA265 “English” 2CP, VIV194 “Basics of German” 2 CP were excluded from the list of common study courses for specialisations, while study course IUV204 “Accounting” 2 CP was included.

Qualitative changes have been made to the study courses for specialisation “Marketing and Sales Economics” in the part of field-specific study courses (B1): study courses IUE409 “Marketing of New Products” 2 CP and IUE121 “Promotions of Sales” 3 CP were excluded, but IUE407 “Marketing” 3 CP and IUI710 “Digital Marketing” 2 CP were included.

At the last stage, names of specialisations, as well as aims, objectives and learning outcomes of internships and qualification papers were revised. For the name of the specialisation to reflect its content and the professional qualification to be acquired more directly, the name of the specialisation “Marketing and Sales Economics” changed to “Marketing and Sales”, but the name of the specialisation “Economics, Accounting and Taxes” was changed to “Accounting”. In the study programme (D) part or “Practical placement”, study courses IUE120 “Internship” 4 CP, ITE323 “Internship” 12 CP, IUE136 “Internship (2<sup>nd</sup> year)” 12 CP, IUF707 “Internship 12 CP were replaced with IUI705 “Internship” 16 CP, IUI706 “Internship” 16 CP, IUI707 “Internship” 16 CP. In the study programme (E) part or “Final examination”, study courses IUV231 “Qualification Paper” 8 CP and

ITE324 “Qualification Paper” 8 CP were excluded, IUI711 “Qualification Paper” 8 CP was included, and, codes of IUE137 “Qualification Paper” and IUF705 “Qualification Paper” were changed to IUI712 and IUI713, respectively. In the descriptions of internship and qualification papers prepared for each specialisation separately, aims, objectives and learning outcomes were updated for them to meet the requirements of the qualification to be obtained more comprehensively.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

In order to achieve the interrelations between study courses, as well as the interrelation with objectives and learning outcomes of the study programme, the study courses have been mapped, and this was discussed in detail at meetings of the self-assessment work group. The mapping identified a) the study courses, which were less valuable and which should be replaced with more relevant ones to the requirements of the profession standard, b) the study courses where the descriptions required an update. The changes made to the list of study courses of the study programme are listed in Chapter 2.1. The mapping of current study courses of the study programme is provided in Annex 8.

In accordance with the mapping results, all the study courses included in the study programme make an important contribution to the learning outcomes of the study programme. In all the specialisations of the study programme, the qualification paper, the internship, as well as the compulsory study courses like UV413 Business and Labour Law and IVZ796 Social Responsibility and Business Ethics have a comparatively higher value. The contribution of these study courses is 8 of the 15 learning outcomes defined in the study programme.

On the list of compulsory study courses and specific specialisation study courses in specialisation “Marketing and Sales” there are more study courses, which develop the ability to organise and perform market research, to analyse market research results (see Annex 8, specific learning outcomes of the specialisation – SP\_T1), as well as the ability to develop a trade plan and to organise its implementation, to take measures for promotion of products on the market, to determine the price of goods (SP\_T2) and the ability to prepare and provide information to the buyer on the goods or services to be sold, to conduct negotiations on conclusion of a contract on behalf of a seller or buyer, to buy and sell products, to establish contacts between buyers and sellers (SP\_T3). Study courses in the specialisation “Personnel Management” ensure the fulfilment of learning outcomes rather homogeneously (SP\_P1-SP\_P4). The specialisation “Accounting” contains more such study courses, which develop the ability to evaluate and register long-term investments, current assets, equity and liabilities, provisions, to plan, organise and perform stocktaking, to independently develop specific financial flow sections, to summarise, plan, control financial resources, incl. taxes, distribution, to supervise debtors and creditors (SP\_G2). Overall, all the specialisations develop more of the professional knowledge, skills and competences, which are less subject to automation or digitalisation and depend only on the qualities characteristic to a person like critical thinking and creativity or the ability to find extraordinary solutions in the new situations.



To order to keep the study courses interlinked, a plan of the study programme has been created to ensure logical sequence of study courses (See Annex 9). In accordance with this plan, students first master a general knowledge, skills and competences. Specialisation study courses are planned for full-time and part-time studies starting from the 2<sup>nd</sup> semester of the 1<sup>st</sup> year of studies.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Study courses of the study programme are implemented in the form of lectures, practicals or laboratory work. The form of practicals or laboratory work is used in 44%–49% of the amount of study courses. In general education study courses, the form of practicals or laboratory work is used for 55%–60%; in sector study courses the form of practicals or laboratory work is used for 36%–43%. Thus, a balance between mastering of knowledge and application thereof has been created to reinforce this knowledge and develop respective skills and competences.

The study program is implemented in full-time intramural form, part-time intramural and extramural forms in the Latvian language, uniformly complying with the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The course descriptions of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points do not depend on the implementation type or form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, part-time studies have a longer program acquisition time and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in different types and forms of studies, the study courses differ only in the number of full-time (or contact hours) and independent work hours and the course teaching methodology or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students.

In the study year 2017/2018, the methodological instructions for the development and defence of the qualification paper were updated. Their improved version was included in the Methodological Instructions for Graduation Papers of the Institute of Business Engineering and Management of the RTU Faculty of Engineering Economics and Management.

In accordance with the RTU Senate decision of 28 January 2019 "On the Approval of the New

Version of Procedure of Organisation of Internship at the Riga Technical University”, internship rules were updated and Methodological Instructions for Internship were developed in 2019.

In order to ascertain the effectiveness of implementation, incl. assessment, methods of study courses, academic performances of students, the results of survey of students, graduates and employers are being examined (see Chapter 2.6).

The compliance with the student-centred education principles is ensured by using the “Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)” (2015) as a basis.

**Principle 1.** To respect and attend to the diversity of students and their needs, enabling flexible learning paths.

In the course of implementation of the study programme, specialisation study courses are organised in small groups, thus ensuring an individual approach and feedback. Students can get personal advice from teaching staff, as well as remote consultations by e-mail.

In accordance with the procedure established at RTU, regular tests and examinations are passed in a written, oral, computerised or combined form. When the computerised form of passing examinations is used, it is implemented in the ORTUS electronic study environment.

**Principle 2.** To consider and use various modes of programme delivery, where appropriate.

The study programme has three modes of delivery, full-time, intramural learning, part-time, intramural learning, and extramural learning. Part-time studies are adapted to the needs of working people enabling them to combine work and studies.

**Principle 3.** To use a variety of pedagogical methods, where appropriate.

Different methods of teaching are used in the study process: lectures, visiting lectures read by industry experts and company representatives; practical demonstrations, incl. audio and video demonstrations; “brainstorming”, discussions and seminars; research work, scientific research work, participation in the implementation of studies and conferences; projects; presentations; solving tasks and challenges; tests and questionnaires; business and role plays; essays, reports; revision tests. The fulfilment of practical tasks is organised individually, in pairs or in groups.

All the study courses use the analytical assessment systems for assessment of learning outcomes, which provides for the share (%) of several types of evaluation or criteria in the final assessment.

**Principle 4.** To regularly evaluate and adjust the modes of teaching and pedagogical methods.

In order to improve the quality of implementation of the study courses, from 2014/2015 to 2018/2019 observations of classes were held, the purpose of which was the evaluation of the level of preparedness of the class of the member of teaching staff, the evaluation of cooperation between teaching staff and students during class, the evaluation of the effectiveness of use of teaching methods and techniques, the evaluation of activity of students, the evaluation of the knowledge of teaching staff of latest scientific and technological achievements.

**Principle 5.** To encourage a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.

The ORTUS portal was introduced at RTU in 2007/2008, which uses the *Moodle* platform and is used in the study process more and more actively. ORTUS provides students with all the necessary information in the course of the study process. There are current study courses (abstracts, requirements to successful passing of the study course, plan of lectures, lecture materials, necessary reading and other materials), information about academic performance of the students

and passed study courses, latest news, library information, access to educational and scientific literature and databases, e-mail, etc. In the ORTUS environment it is possible to communicate with any member of teaching staff and within the current study courses also with fellow students.

In order to achieve faster exchange of information and at the same time simplify students' search for the latest information, a website of the Division of Continuing Education of IBEM (or the Institute of Business Engineering and Management) was created in the ORTUS e-studies environment. From this website, students of the study programme obtain information about latest news, mobility opportunities, internship and job offers, valuable study materials, times of consultations of teaching staff, lists of classes, internship and graduation papers (incl. application for examinations).

**Principle 6.** To promote mutual respect within the learner-teacher relationship.

Mutual respect within the learner-teacher relationship is promoted by informing both parties about valid RTU documents: "Code of Ethics of RTU Students, Teaching Staff and Employees" (decision of the RTU Senate meeting of 30 May 2005), "On Internal Rules of the Riga Technical University for Students" (decision of the RTU Senate meeting of 24 September 2007), "Academic Fairness Code of the Riga Technical University" (decision of the RTU Senate meeting of 29 February 2016).

**Principle 7.** There are appropriate procedures in place for dealing with students' complaints.

In case of disagreements problems are solved through negotiations by establishing a trilateral dialogue between students, teaching staff and administration representatives. Examination of students' complaints, incl. appeals, takes place in accordance with the procedures defined in the RTU Senate decision of 23 February 2015 "Regulations on Final Examinations" and RTU Senate decision of 27 May 2017 "On the Approval of the New Version of the Regulation on Assessment of Learning Outcomes".

Students are encouraged to get involved in the creation of the study process by welcoming them to provide their opinion in regular surveys for students and graduates (see Chapter 2.6), as well as supporting them in directly expressing their wishes to the teacher of the specific study course, administration representatives or with the help of student self-government.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship is a compulsory part of the study programme. Its general description is provided in Annex 6, which indicates its compliance with the state education standard.

Each specialisation has internship which consists of two parts, each amounting to 8 CP. During internship, students do practical work and execute internship tasks, thus reinforcing and supplementing professional knowledge, developing skills and competences in the selected specialisation.

Internship tasks for specialisation "**Marketing and Sales**".

**Part 1:** 1) to provide a general description of the company, its operations and development; 2) to describe the organisational structure of the company; 3) to analyse the internal environment of the

company; 4) to analyse the external environment of the company having direct and indirect influence; 5) to conduct a SWOT analysis of the company.

**Part 2:** tasks of part 1 of the internship, 6) to conduct a market research and to determine market demand; 7) to segment primary and secondary market; 8) to determine and group the set of marketing measures or marketing mix elements by the degree of importance; 9) to describe all the used marketing mix elements.

Internship tasks for specialisation “**Personnel Management**”.

**Part 1:** 1) to provide a general description of the company, its operations and development; 2) to describe the organisational structure of the company and the role of personnel management therein; 3) to analyse the structure and flow of personnel of the company; 4) to describe the factors influencing personnel management in the company; 5) to describe company personnel management processes; 6) to conduct a SWOT analysis of these processes.

**Part 2:** tasks of part 1 of the internship, 7) to determine the main problems in the field of personnel management in the company and their reasons; 8) to offer the types of solution of identified problems.

Internship tasks for specialisation “**Accounting**”.

**Part 1:** 1) to provide a general description of the company, its operations and development; 2) to describe the organisational legal form and the organisational structure of the company; 3) to describe the factors influencing operations of the company, incl. the accounting system; 4) to analyse the financial status of the company; 5) to describe the accounting system of the company; 6) to analyse strengths and weaknesses of the accounting system of the company.

**Part 2:** tasks of part 1 of the internship, 7) to make an in-depth assessment of the organisation of the accounting process; 8) to analyse and evaluate an annual report of the company.

Internship tasks have been created in such a way so as to comply with the common and specialisation learning outcomes of the study programme. During the first internship in a specific company (or institution) the student studies the field of his or her specialisation comprehensively. During the second internship in the same or different company (institution) in addition to the general study of the field, the student conducts a more detailed analysis and evaluation, offers solutions.

In order to support student in the achievement of the tasks set for internship, internship places are offered to students. The most direct communication channel on internship opportunities is the website of the Division of Continuing Education of IBEM in the ORTUS e-studies environment, which contain a block of information “Internship and job offers”. This block always contains 3-5 announcements or links to the announcement “board” according to specialisations of the study programme. Information about internship opportunities is also provided by the RTU Career Centre. Announcements on placement opportunities on the portal of the Centre may be filtered by groups of professions, incl. by profession groups like “Advertising and marketing specialists”, “Sales, services and trade specialists”, “Office work and administrative work support specialists”, “Accounting, business and financial sector specialists”.

In order to facilitate the fulfilment of internship tasks, the Methodological Instructions for Internship have been developed and there is an interim review on the preparation of an internship report.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their**

**relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The topics of graduation papers of students in each specialisation of the study programme were similar, because methodological instructions for the preparation of graduation papers provided the mandatory structure of graduation papers for each specialisation. Such a mandatory structure for a graduation paper has been introduced to ensure that students strengthen their professional basic knowledge. The topic of the graduation paper in the specialisation "Marketing and Sales" could be: "Marketing plan for a company product" (or also "Marketing plan for a company") or "Company (product or service) promotion (sales promotion, advertising, direct sale, direct marketing, public relations or communication) plan". The template for the topic of the graduation paper in the specialisation "Personnel Management" was "Company personnel management project". The template for the topic of the graduation paper in the specialisation "Accounting" was "Evaluation of the organisation of the accounting process in a company" or "Analysis and evaluation of an annual report of a company". The difference in topics of graduation papers mainly was in the company name, based on which the graduation paper was developed. When analysing topics of graduation papers of students, a conclusion can be made that the specialisation "Marketing and Sales" mostly deals with marketing plans for companies in the private sector, the specialisation "Personnel Management" – with personnel management projects in companies in the private sector, and the specialisation "Accounting" – with the analysis and evaluation of annual reports of companies in the private sector.

The analysis of marks of graduation papers of students shows that assessments in the specialisation "Marketing and Sales" in the reporting period were 5-8, the most common mark was 7 (good). In the specialisation "Personnel Management", marks were 5-9, the most common mark was 7 (good) and 6 (almost good). In the specialisation "Accounting" marks were 6-9, the most common mark was 7 (good). The median value of marks of graduation papers in all specialisations is similar, i.e. 7 (good). Overall, the dynamics of marks of graduation papers is almost stable, with a small trend for the marks improving.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The results of student surveys (in the ORTUS e-studies environment) every semester on the quality of the study content and work of teaching staff, as well as the results of surveys of graduates (in the ORTUS e-studies environment) and references of employers (provided on a standardised form, which is an integral part of an internship report) on professional preparedness of interns are used for quality monitoring of the study programme. In addition to these surveys, in the last three years at the end of the spring semester the administration of the Division of Continuing Education of IBEM has been conducting annual surveys of students of the study programme (except for the students in their last year of studies) on studies in general, including in the questionnaire questions, which are similar to those included in surveys for graduates. Thus, the opinion of students is obtained quicker and problems, if any, are solved more efficiently.

The results of student surveys for 2013/2014-2018/2019 demonstrate that courses of the study

programme are evaluated rather highly. In the evaluation criteria of all study courses the assessment varies from 65 to 100%. Each study course has strengths and weaknesses, however it can be seen that in the autumn semester students most often point out to overlapping of study courses with other study courses, while in the spring semester – to insufficient availability of study aids recommended by teaching staff.

Complaints of students about insufficient availability of study aids recommended by teaching staff are most often received in the spring semester, because most students work on their graduation papers in the spring semester. To eliminate this problem, teaching staff has been advised that when they recommend reading to students, they should primarily consider whether it will be available in the RTU Scientific Library or academic databases to which it is subscribed. Moreover, every year RTU orders study literature for study programmes in a centralised way allowing teaching staff and the director of the study programme to specify, which books should have to be purchased and in what amounts.

As to the complaints of students about overlapping of study courses, this matter is considered together with the evaluation of teaching staff. For example, students of the specialisation “Personnel Management” mentioned several times that the study courses IVZ711 Personnel Records and IUV106 Business Communication taught by one member of teaching staff are similar. Therefore, having evaluated competence of teaching staff, it was decided to involve a teacher having more valid experience in record keeping for study course IVZ711 Personnel Records.

Taking into account student survey results, as well as having directly listened to their complaints or wishes with regard to the type of learning, the approach to assessment, etc., matching them to academic performance of students and good learning practices, teaching staff for study courses Consumer Behaviour, Enterprise Management, Civil Defence, Mathematics, English have been replaced.

The results of graduate surveys for 2013/2014-2018/2019 demonstrate that the overall evaluation of the study programme is good. In the reporting period, most of graduates were satisfied with the study programme, the obtained theoretical knowledge and practical skills, the proportion of lectures and workshops, the planning of classes, the premises, the provision of aids in auditoriums (projector, board, etc.), the availability of study literature and information for the study process, the work of administration.

Although most of graduates believe that no significant improvements to the study programme are necessary and that study programme does not contain unnecessary study sources, one to three graduates recommend on a regular basis to introduce more specialised study courses or create more practical tasks. Indications of individual graduates that study courses on macroeconomics and economic statistics are too advanced and there are too many hours for learning English, resulted in changes in courses of the study programme (see Chapter 2.1). Respectively, in 2015, study courses IET102 Microeconomics 3 CP and IET111 Macroeconomics 3 CP were replaced with ITA704 Economics 4 CP. In 2017, study course IĀS207 Economic Statistics 2 CP was replaced with IĀS205 Statistics 3 CP; the time for mastering of general foreign language skills reduced – study courses HVD155 English 4 CP and HVD154 German 4 CP were replaced with HGD403 English 2 CP and HGD521 German 2 CP.

In order to optimally combine mastering of knowledge with development of practical skills in study courses, the teaching staff involved in the study programme was motivated to improve their teaching methods. The improvement of teaching methods took place at the meetings of the holder of the study programme – Institute of Business Engineering and Management – and its departments, as well as in the form of individual feedback during observation of classes of teaching staff.

The summary of references from employers about students of the study programme as interns demonstrates that employers rather highly evaluate the attitude of students towards duties entrusted to them, disciplines, theoretical and practical preparedness, the quality of performed work, business qualities. In the reporting period, the marks of interns have not been lower than 7 (good). The most frequent marks for interns were 8 (very good) or 9 (excellent). References from employers do not indicate that some criterion would constantly have a higher or lower mark. Overall, this is an indication of comprehensive and balanced development of future specialists.

Employers' observations and recommendations facilitated changes in the choice of study courses of the study programme. In order to match the content of the study programme to current trends in the industry and labour market, new study courses were included in the part of compulsory study courses of the study programme, such as IVZ749 "Business Intelligence Technologies I", IVZ746 "New Product Design and Development Methodology" and IVZ796 "Social Responsibility and Business Ethics "; in specialisation "Marketing and Sales", the study course IUI710 "Digital Marketing" was included; in specialisation "Personnel Management", the study courses IUV229 "Human Resource Economics" and IUV433 "Work Motivation Theories" were included.

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

There was no incoming mobility of students in the reporting period. Although students of the study programme constantly have access to information about outgoing mobility opportunities, for example on the website of the Division of Continuing Education of IBEM in the ORTUS e-studies environment, in the information block "Erasmus+", only one student has used this opportunity in the reporting period – from the specialisation "Personnel Management", and from 25.01.2019 to 28.05.2019 studied at the University of Nicosia (Cyprus) within the scope of the *Erasmus* exchange programme. After her return, study course CAK142 Service Quality Management of 4 CP was recognised for the student.

When analysing reasons for slow outgoing mobility, it may be concluded that this most probably is related to the fact that the study programme mostly has part-time extramural learning students combining studies with work. An employment relationship significantly restricts students in free planning of their mobility, taking into account that the minimum study mobility period is three months and the minimum internship period is two months.

## **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

### **3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the**

**information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The study, informative, material, technical and financial base of RTU, as well as the Faculty of Engineering Economics and Management, is used for the implementation of the study programme.

Classes for students in Riga take place in auditoriums of the building of the Faculty of Engineering Economics and Management at Kalnciema iela 6. Students have access to at least two computer rooms (on floors 4 and 5). Document printing, copying and binding services are provided in the premises of the Information and Service Centre (floor 1) and the Division of Continuing Education (room 505). Consultations of teaching staff of study courses can be received at the provided consultation hours during the semester and session in the working room of the member of teaching staff, which is located at the Faculty of Engineering Economics and Management; consultations of visiting lecturers may be obtained at previously agreed times in the auditorium or consultation room (room 507).

The ORTUS portal plays an important role, which provides an e-study environment, a career section, a virtual class and session plan system, a research support system, information for employees, a base of laws and regulations, a project management system. The portal summarises information about study, household, IT support and document management services.

The demand for new study literature is updated every year. Thanks to that, the latest books are purchased, which are good not only for the students of the study programme, but also for the involved teaching staff. The purchased books can be found in the RTU Scientific Library. The Lending Department Of Textbooks of the RTU Scientific Library has several copies of books necessary for specialisations of the study programme. **For specialisation “Marketing and Sales”:**

Praude, V., Liniņa, I. (2018). *Pārdošanas vadība*. Uzņēmējdarbības bibliotēka (sērija) Nr. 70.

Praude, V., Šalkovska., J. (2018). *Satura mārketinga internetā: kā uzņēmumiem ar mazām izmaksām piesaistīt, apkalpot un noturēt patērētājus*. Rīga: Burtne.

Gerber, M. (2013). *Uzņēmējdarbības meistarība: ko zina ikviens veiksmīgs uzņēmējs*. Jelgava: Zoldnera izdevniecība.

Bergman, B., Klefsjö, B. (2010). *Quality: From customer needs to customer satisfaction*. Lund: Studentenlitteratur.

**For specialisation “Personnel Management”:**

Janitēna, Z. (2017). *Ievads dokumentu pārvaldībā: lietvežiem un visiem, kas ikdienā strādā ar dokumentiem*. Rīga: Lietišķais informācijas dienests.

Vorončuka, I. (2009). *Personāla vadība: teorija un prakse*. Rīga: Latvijas Universitāte.

Ešenvalde, I. (2008). *Personāla vadības mūsdienu metodes*. Rīga: Merkūrijs LAT.

**For specialisation “Accounting”:**

Ciemleja, G., Lāce, N. (2018). *Personīgo finanšu pārvaldība: mācību līdzeklis*. Rīga: RTU Izdevniecība.

Ketners, K. (2018). *Nodokļi un nodokļu plānošanas principi*. Rīga: SIA “Tehnoinform Latvia”; SIA “Info Tilts”.



Tīse, L. (2018). *Grāmatvedība: mācību grāmata. 2. daļa, Saimniecisko līdzekļu uzskaitē*. Rīga: RTU Izdevniecība.

Tīse, L. (2017). *Grāmatvedība: mācību grāmata. 1. daļa, Grāmatvedības pamati*. Rīga: RTU Izdevniecība.

Semjonova, N., Ketners, K. (2013). *Komercedarbības finansēšanas aprēķini: Mācību līdzeklis*. Rīga: RTU Izdevniecība.

Taking into account high prices of printed materials and the fact that the information gets quickly outdated, students are encouraged to use RTU e-resources – subscribed and free-access databases of the Scientific Library (incl. *LETA, Letonika, Web of Science, ScienceDirect, EBSCO, WILEY Online Library, iFinances.lv* etc). RTU e-resources are available in the ORTUS section “Library”.

In addition to the resources of the RTU Scientific Library, the books used in several study courses are available in room 505 of the Division of Continuing Education, as well as general and special literature is available on shared bookshelves on floor 0 of the building of the Faculty of Engineering Economics and Management.

The source of funding of the study programme are government funds and the tuition fee paid by natural persons for studies. In the reporting period, most of the funding was the tuition fee paid by natural persons for studies – from 60% to 79% (in the study years 2016-2017 and 2014/2015, respectively). Since 2016/2017, the share of tuition fee paid by natural persons for studies in the study programme has increased and reached 72%. As to the specialisation “Personnel Management”, which was added from the first level professional higher education study programme “Human Resources Management”, since 2014/2015 its funding has been solely the tuition fee paid by natural persons.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Several changes to the composition of the study course have been made in the reporting period, taking into account oral feedback from students, annual survey results of students (except for students in the last year of studies) of the Division of Continuing Education of IBEM, the results of evaluation of study courses each semester and the results of surveys for graduates. As it was mentioned above (see Chapter 2.6), teaching staff of study courses Consumer Behaviour, Enterprise Management, Civil Defence, Mathematics, English, Personnel Records was replaced in order to improve the quality of study courses and the student-teacher relations. This was followed

by improvements in the evaluation of respective study courses and the amount of negative remarks about teaching staff in questionnaires for graduates has reduced.

In the reporting period, all the teaching staff involved in the implementation of the study programme held at least a Master's degree, thus ensuring compliance with the requirements set by Section 39 of the Law on Higher Education Institutions to academic staff of professional study programmes.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

28 members of teaching staff are involved in the implementation of the study programme, of which 57% hold a Master's degree and 43% a doctoral degree. The teaching staff consists of academic staff (71%) and visiting teaching staff (29%) (six visiting lecturers and two visiting assistant professors). A summary of compliance of qualifications of teaching staff with the study courses being taught, incl. professional improvement of teaching staff in the reporting period, is provided in Annex 11.

**Ieva Andersone** teaches study courses in marketing, consumer behaviour and marketing planning. She has a D.Sc. in economics with specialisation in management sciences and specifically in business management; the topic of her doctoral thesis was consumer behaviour on the market in the context of taking business decisions. Ieva Andersone has 19 years of experience in pedagogical work. From 2019, she participates in the international project ERASMUS "FOrSE" (*Framework of Organising Studies Entrepreneurially*) and has traineeship at SIA "Milzu!" within the scope of the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of academic staff of the Riga Technical University in strategic specialisation areas". Ieva Andersone attended 30 professional qualification improvement activities to improve her pedagogical and marketing-related competences.

**Ilona Ezera** teaches study courses in business communication and personnel records. She has a Master's degree in economics with specialisation in business management. Ilona Ezera has 33 years of pedagogical experience; her previous experience was related to providing assistance to top executives of public administration institutions. She has attended 10 professional qualification improvement activities to improve her pedagogical and record-keeping-related competences.

**Rita Greitāne** teaches study courses on wholesale and retail management and project management. She has a D.Sc. in economics with specialisation in management sciences and specifically in business management; the topic of her doctoral thesis was economic securing of the quality of services in small and medium-sized enterprises. Rita Greitāne has 21 years of experience in pedagogical work. From 2019, she has been having traineeship at SIA "Milzu!" within the scope of the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of academic staff of the Riga Technical University in strategic specialisation areas". She has attended 12 professional qualification improvement activities to improve her pedagogical and marketing and project management-related competences.

**Māris Jurušs** teaches the study course on taxes and duties. He holds a D.Sc. in economics, the topic of his doctoral thesis was improvement of the tax system. Māris Jurušs has eight years of experience in pedagogical work; worked as the leading expert at the Latvian Ministry of Economics, as an economist in a state joint stock company, as a project manager in an international auditing, business, tax and legal services, occupied management positions in the Tax Policy Department of the Latvian Ministry of Finance. In 2019, he had a mobility trip to the Tallinn Academy of Security Sciences (Estonia) within the scope of ERASMUS academic staff experience exchange.

**Līga Kamola** teaches the study course introducing to the study field. She holds a Master's degree in public management and Master's degree in education; she has 12 years of experience in pedagogical work and leading of a structural unit of the Faculty of Engineering Economics and Management.

**Uldis Kamols** teaches the study course on economics. He holds a Master's degree in entrepreneurship and management and Master's degree in economics. Uldis Kamols has 15 years of experience in pedagogical work; he has worked as a senior desk officer in the Department of Development Instruments of the Ministry of Regional Development and Local Government Affairs, as a project manager in the State Employment Agency, as the chief inspector at the Internal Audit Service of the State Border Guard. In 2019, he underwent a traineeship at SIA "ESSA" within the scope of the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of academic staff of the Riga Technical University in strategic specialisation areas". In 2019, he had a mobility trip to the Handong Global University (Republic of Korea) within the scope of ERASMUS academic staff experience exchange. He attended 35 professional qualification improvement activities to improve his pedagogical and economics-related competences.

**Toms Kreicbergs** teaches the study course on digital marketing. He holds a Master's degree obtained at the University of Southern Denmark (Denmark), where he graduated study programme "Brand Management and Marketing Communication". Practical experience was gained when working as a marketing manager in two Danish companies with an international focus, as well as working in two Latvian advertising agencies; he has been the owner of an individual company in the field of information services.

**Jānis Kuškins** teaches the study course on fundamentals of business logistics. He holds a Master's degree in customs and tax administration. Jānis Kuškins has 24 years of experience in pedagogical work; worked in management positions in a railway transport company and in structural units for traffic coordination in public administration institutions. He has attended nine professional qualification improvement activities to improve his pedagogical and business and logistics-related competences.

**Tālis Laizāns** teaches the study course on enterprise economics. He has a degree of Master of Economics. Tālis Laizāns has 18 years of experience in pedagogical work, as well as practical experience in financial management of companies, raising of funds and experience in European Union-funded projects in social sciences and bio-economics.

**Inga Lapīņa** teaches a study course on social responsibility and business ethics. She has a D.Sc. in economics with specialisation in management sciences and a Master's degree in education. The topic of her doctoral thesis was the development of human capital and education system in Latvia. She has more than 23 years of experience in the field of higher education: management of the study process, research, quality assessment and management of international projects. Extensive experience in the work of both Latvian and international organisations: a representative of the Employer's Confederation of Latvia, a member of the Tripartite Sub-council for Co-operation in Vocational Education and Employment, a member of the Expert Council for Business, Finance, Accounting, Administration Fields, a member of the board of *Baltic Management Development*

Association (BMDA) and a representative of A Forum Around Quality Assurance (EQUAL), etc. From 2019, she has been having traineeship at the Latvian National Standardisation Institution "Latvijas standarts" within the scope of the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of academic staff of the Riga Technical University in strategic specialisation areas". She had several mobility trips within the scope of ERASMUS academic staff experience exchange and in other professional qualification improvement activities.

**Natalja Lāce** teaches the study course on managerial accounting. She has a D.Sc. in economics. 29 years of experience in pedagogical work. She has attended several professional qualification improvement activities to improve pedagogical and finance and accounting sectors-related competences, incl. training for work with the *Bloomberg* database.

**Evija Liepa** teaches the study course on mathematics and statistics. She has a D.Sc. in mathematics, pedagogical work experience of more than 20 years. Evija Liepa is an extremely talented teacher who is popular among students; she knows how to present difficult material in a simple and inspirational manner.

**Daina Ose** teaches the study course on business and labour law. She has a Doctor of Juridical Science degree. Daina Ose has 26 years of experience in pedagogical work; she has worked as a lawyer in a manufacturing company for 11 years, is a sworn attorney, however, in the last eight years she has been working as a legal adviser at the Legal Office of the Latvian Parliament.

**Iveta Ozoliņa-Ozola** teaches a course in personnel management and human resources economics. She has a D.Sc. in economics with specialisation in management sciences and specifically in business management; the topic of her doctoral thesis was personnel turnover problems and management solutions in companies. Iveta Ozoliņa-Ozola has 27 years of experience in pedagogical work; in the last five years she has been participating in an advisory company as an expert and researcher in human resources management and economics in evaluations research, programmes and other projects commissioned by state institutions. From 2019, she has traineeship at SIA "LATSIGN" within the scope of the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of academic staff of the Riga Technical University in strategic specialisation areas". She has attended 28 professional qualification improvement activities to improve her pedagogical and human resources management and economics-related competences.

**Gunārs Ozolzīle** teaches the study course on business etiquette. He has a D.Sc., the topic of his doctoral thesis was building of engineering and technical intelligence. Gunārs Ozolzīle has a service record of 29 years in pedagogical work. In 2017, he had a mobility trip to the Lithuanian University of Educational Sciences within the scope of ERASMUS academic staff experience exchange. In 2018, he completed the course "Improvement of competences of academic staff in pedagogy and IT" of 160 hours.

**Nadežda Semjonova** teaches study courses on business financing and crediting, as well as auditing and control. She has a D.Sc. in economics with specialisation in macroeconomics; the topic of her doctoral thesis was public debt policy modelling. Nadežda Semjonova has 21 years of experience in pedagogical work. In 2019, she had a mobility trip to the Brno University of Technology (Czech Republic) within the scope of ERASMUS academic staff experience exchange. She has attended 11 professional qualification improvement activities to improve her pedagogical and financial sector-related competences.

**Deniss Ščeulovs** teaches the study course on new product design and development methodology. He has a D.Sc. in economics in management sciences with specialisation in business management. Deniss Ščeulovs has seven years of experience in pedagogical work. He had 16 mobility trips within the scope of ERASMUS academic staff experience exchange and other international mobility.

**Matīss Šmitiņš** teaches study courses relating to civil defence, work environment and ergonomics. He holds a Master's degree in occupational safety. Matīss Šmitiņš has four years of experience in pedagogical work; works in a healthcare institution as a senior specialist in occupational safety and fire safety. He attended 12 professional qualification improvement activities to improve his pedagogical and civil defence and occupational safety-related competences.

**Lolita Tise** teaches study courses on foundations of accounting and financial accounting. She has an academic degree of a Master of Engineering Sciences in business management. Lolita Tise has 30 years of experience in pedagogical work. She attended seven professional qualification improvement activities to improve her pedagogical and financial and accounting sector-related competences.

The above-mentioned teaching staff is the academic staff involved in the implementation of the study programme. As to visiting lecturers and visiting assistant professors, they were selected mainly taking into account how their practical experience matched with the study courses being taught. See below main characteristics of these groups of teaching staff.

**Normunds Balabka** teaches the study course on enterprise management. He holds a Master's degree in several sciences – economics, politics, law and education. Normunds Balabka has 27 years of experience as a director of an individual company, 12 years of experience in pedagogical work, he has been a director of a secondary school for the last eight years. He has attended 14 professional qualification improvement activities to improve his pedagogical and organisation management-related competences.

**Tatjana Celmiņa** teaches the study course on business intelligence technologies. She holds a Master's degree in management; has over 10 years of experience in administration and pedagogical work.

**Jānis Pildavs** teaches the study course on quality management. He is a Master's degree in comprehensive quality management; he works as a director of a college.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The academic staff of the study programme is encouraged to get involved in scientific research at different levels. For example, at the institute level – by financially supporting participation in conferences and/or submission of publications to scientific editions; at the faculty level – by organising academic and scientific conferences, creating and participating in projects.

In 2018, the director of the Institute of Business Engineering and Management introduced a system of awards as a trial to motivate employees to create scientific publications. This system provides for a financial incentive or premium for earned points, which, in turn, depend on the level of the publication.

As it has been mentioned above (see Chapter 2.1), the evaluation of knowledge of teaching staff of latest scientific and technological achievements was one of the reasons of observation of lectures.

Below is the summary of the involvement of academic staff of the study programme in scientific research in the reporting period.

In 2018, **Ieva Andersone** participated at the academic conference of the RTU Faculty of Engineering Economics and Management (hereinafter referred to as FEEM) “Integration of methodological and scientific teaching work in the study process” and presented a report “Methodological teaching challenges in teaching the study subject Marketing”. She presented three reports on consumer behaviour and marketing decisions at international conferences, as well as developed two scientific publications on these topics.

In 2018, **Ilona Ezera** participated in the RTU FEEM academic conference “Integration of methodological and scientific teaching work in the study process”.

In 2018, **Rita Greitāne** participated in the RTU FEEM academic conference “Integration of methodological and scientific teaching work in the study process”, in 2019, at the RTU FEEM academic conference “Transversal skills based education in schools and its impact on higher education”, with a report “Ensuring quality of a study programme and courses in the field of leadership and management”. She made four reports on development of retail sales, ensuring the quality of services and projects management at international scientific conferences. She prepared two scientific publications on development of retail sales. In 2016, she participated in the Discussion Club organised within the scope of the Project Management Month of the Latvian National Project Management Association on the topic “Education opportunities to project managers in Latvia”, as well as at the order of the Latvian Traders Association and in accordance with the agreement concluded with RTU conducted a research on the evaluation of economic impact of the prohibition to display tobacco products in trade places in Latvia. In 2018, she became the head of a research on satisfaction of railway passengers with the quality of railway services in Latvia, which was conducted at the order of the State Railway Administration and in accordance with the agreement concluded with RTU.

Since 2017, **Māris Jurušs** has been an expert of the Latvian Scientific Council in the field of economics and entrepreneurship. Author of several publications on tax, customs and education matters, incl. international tax matters, cooperation economics, tax administration, losses of oil products, small business, VAT for restaurants, environmental taxes and other. In the reporting

period, he has prepared 17 scientific publications.

**Līga Kamola** has 22 scientific publications in the field of education and economics.

**Uldis Kamols** presented five reports at international scientific conferences and prepared 22 scientific publications in the field of economics.

**Tālis Laizāns** has 11 scientific publications in the field of business, social innovation and finances.

**Inga Lapiņa** participated in the field of development of the education system as an expert, researcher or project manager in over 20 projects and studies, promoting interdisciplinary and intersectoral international cooperation and research with a significant contribution to the improvement of the Latvian education system. Since 2018, she has been an expert of the Latvian Scientific Council in the field of economics, entrepreneurship and political sciences. Inga Lapiņa has over 70 scientific publications in quality management, entrepreneurship and education areas.

**Natalja Lāce** presented 23 reports at international scientific conferences and prepared 71 scientific publications in the field of finances and entrepreneurship.

In 2018, **Iveta Ozoliņa-Ozola** participated in the RTU FEEM academic conference “Integration of methodological and scientific teaching work in the study process”. She presented 10 reports at international scientific conferences and also prepared 11 scientific publications in the field of human resources management and economics. From 2014 to 2017 she worked as a scientific researcher in the National Research Programme EKOSOC-LV project 5.2.7. “Involvement of the society in social innovation for providing sustainable development of Latvia”. In 2016-2017, she worked as a researcher in the Norwegian grant project “EU policies impact to the transformations of the higher education and research system in Norway and Latvia”. Since 2018, she has been working as a researcher in the IMPRESS project (Improving management competences on Excellence based Stress avoidance and working towards Sustainable organisational development in Europe) funded by the European Union Erasmus+ programme.

Since 2017, **Gunārs Ozolzile** has been an adviser in designing and conducting of social research in the international FP7/H2020 FLAG-ERA project FuturICT 2.0 “Large scale experiments and simulations for the second generation of Futur ICT”. He presented 12 reports at international scientific conferences and prepared five scientific publications in the field of politics.

In 2018, **Nadežda Semjonova** participated in the RTU FEEM academic conference “Integration of methodological and scientific teaching work in the study process”, in 2019, at the RTU FEEM academic conference “Transversal skills based education in schools and its impact on higher education”. Since 2019, she has been the leading researcher in the ERDF project “Methodology of commercialisation of innovative biomedical devices and evaluation of the manufacturing financing model”. She has 13 scientific publications in the field of finance.

**Deniss Ščeuļovs** is an expert of the Latvian Scientific Council in the field of economics and entrepreneurship. In 2018, he participated in the FEEM academic conference “Integration of methodological and scientific teaching work in the study process”. He has prepared 37 scientific publications in the field of entrepreneurship. He participated in five international projects, incl. was the head of the project “SME coaching: 5-POINT training programme”.

**Matiss Šmitiņš** presented two reports on the quality of the work environment at international scientific conferences and prepared two respective scientific publications.

In 2018, **Lolita Tīse** participated in the RTU FEEM academic conference “Integration of methodological and scientific teaching work in the study process”, in 2019, at the RTU FEEM academic conference “Transversal skills based education in schools and its impact on higher

education”.

The involvement of academic staff of the study programme in scientific research allows the teaching staff to obtain information on the results of important and topical research and the methodology of research in the field of the study courses being taught, develop scientific skills and competences, incl. thinking, reasoning skills, academic writing. Overall, this allows to create study courses of higher quality and establish better communication with students by including in their study courses verified or reliable theories and the results of latest research, which are acceptably reliable, stimulating students' analytical, critical and creative thinking, to argument own opinion, teaching them to select necessary data and information, use appropriate data processing and analysis methods, to write in a logical and well-reasoned manner.

There are several examples of the transfer of knowledge and skills gained in the scientific research of the academic staff of the study programme in the study process. In 2018, Rita Greitāne involved students in obtaining data in the research on satisfaction of railway passengers with the quality of railway services in Latvia, organising their work in small project groups. Thus, students developed research skills and project management skills. In the study course IUE135 “Management of Retail and Wholesale” Rita Greitāne integrates the results of retail research, telling and creating practical tasks on current issues in the field of trade. Iveta Ozoliņa-Ozola, based on the study of the values of young students of professional higher education study programmes<sup>[1]</sup>, has introduced several elements of gamification in the study courses IUV305 “Personnel Management (basic course)” and IUV229 “Economics of Human Resources”. From the participation in the IMPRESS project, the results of a study on occupational stress and its factors were obtained, which were further used to supplement presentations on topics of professional adaptation and stress, as well as to develop practical tasks and discussion questions. Through the research of the doctoral thesis on employee turnover defended in 2017, the study material on the analysis of the number, structure and flow of employee was significantly improved. Mārijs Jurušs, within the study course IMP201 “Taxes and Duties”, discusses the findings obtained in research with students, as well as incorporates research findings into practical tasks. For example, the results of a study on the impact of corporate income tax on corporate financial performance<sup>[2]</sup> are used to teach students about corporate income tax so that they can better understand the impact of the tax on the taxpayer's or company's performance. The findings of the study on value added tax<sup>[3]</sup> are used to teach students about the importance of the reduced rate of value added tax and its impact on taxpayer's tax burden, a specific industry and market as a whole. Student group work is organised as student research on a topical tax issue or problem.

[1] Ozoliņa-Ozola, I. (2018). Profesionālās augstākās izglītības studiju programmu studentu-jauniešu vērtības un to ievērošana pedagoģiskajā darbībā. In: RTU FEEM academic conference “*Integration of methodological and scientific teaching work in the study process*” proceedings, 30 November 2018.

[2] Bizņa, V., Jurušs, M., Laizāns, T., & Šnikvalds, R. (2018). Assessment of Impact of Corporate Income Tax Suspension on Financial Performance of Businesses. *Economics and Business*, 32(1), 172-181.

[3] Jurušs, M., Roze, L., & Lūka, M. (2019). Impact of Value Added Tax On Restaurant Services. *Acta Prosperitatis*, (10), 23-158.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the**



**teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

A formalised and non-formalised mechanisms for involvement of teaching staff in the improvement and interrelation of study courses has been developed. The formalised mechanism includes meetings of the Institute of Business Engineering and Management and its departments, at which teaching staff has an opportunity to make and discuss proposals. The non-formalised mechanism mainly manifests in the form of informal communication (for example, “over a cup of coffee” in room 505 of the Division of Continuing Education, where teaching staff can get free coffee) and transfer of information through the administration of the study programme.

In Riga, the student-teacher ratio is 3.14 or approximately three students per teacher. This indicator is indicative, as it does not take into account the working load of teaching staff in the study programme. In accordance with the report of the Organisation for Economic Co-operation and Development “Education at a glance 2019” (OECD, 2019), low student-teacher ratio is a precondition for individualised approach in studies. We should admit that the advantages of an individualised approach are implemented when there is appropriate funding of the study programme.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5 - IKU0.pdf	5.Pielikums - IKU0.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 - IKU0.pdf	6.Pielikums - IKU0.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Annex_7.pdf	7_pielikums.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Annex_8.pdf	8_pielikums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Annex 9-IKU0.pdf	9.Pielikums-IKU0.pdf
Descriptions of the study courses/ modules	Appendix 10-IKU0.zip	10.Pielikums-IKU0.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms-IKU0.pdf	Diploms-IKU0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Agreement between LLU and RTU 2019.pdf	Vienošanās_LLU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	AGREEMENT_2019_EN.pdf	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Organization and Management of International Economic Relations

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Organization and Management of International Economic Relations</i>
Education classification code	<i>47345</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Ingūna</i>
Surname of the study programme director	<i>Jurgelāne - Kaldava</i>
E-mail of the study programme director	<i>Inguna.Jurgelane-Kaldava@rtu.lv</i>
Title of the study programme director	<i>Asociētā profesore, Dr.oec.</i>
Phone of the study programme director	<i>67089553</i>
Goal of the study programme	<i>The aim of the study program is to improve and develop professional, research and creative skills for work in the fields of international relations, logistics or management of transport economy. To prepare qualified specialists for the national economy, providing theoretical knowledge and practical skills, expanding the understanding of professional activities and promoting social responsibility within the competence. The acquired knowledge and skills should provide the graduate with a basis for doctoral studies and independent research.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>- To provide competitive education at international level in the fields of organization, management or logistics of international business and transport economics in line with the requirements of the master's level, profession standard qualification and international standards;</i></li> <li><i>- To provide students with comprehensive knowledge, to develop analytical thinking, to develop skills and competences, as well as to promote practical work skills, preparing students for the labour market;</i></li> <li><i>- To ensure the development and improvement of the content of the study program, the study process as well as the scientific research work in accordance with international practice and the latest software, scientific and technological discoveries and innovative methods;</i></li> <li><i>- To stimulate students' interest in further professional development and improvement of academic knowledge, to continue their studies at Doctoral level, in-service training, as well as to develop interest in research work and to promote the use of these skills;</i></li> <li><i>- To encourage cooperation between students and academic staff in the field of scientific research, the practical application of the results of the research both in the study process and in practice, and to encourage international mobility and participation in local and international projects;</i></li> <li><i>- To stimulate students' interest in social processes and to develop ethical and socially responsible personalities.</i></li> </ul>

Results of the study programme	<p><i>Study program graduates are:</i></p> <ul style="list-style-type: none"> <li>- Able to develop an international strategy for the organisation's needs in the field of international communications, logistics or transport organization;</li> <li>- Able to use information rationally and solve problems of management of a unit or organization;</li> <li>- Able to independently develop and manage international cooperation projects;</li> <li>- Able to work individually and in a team, using his / her knowledge and skills, and is able to take responsibility for the results of his / her work and the decisions made;</li> <li>- Able to represent the interests of the organization in cooperation with other companies, institutions or organizations;</li> <li>- Able to apply both local and international laws and regulations within their competence;</li> <li>- Able to use professional terminology in the official language and foreign language;</li> <li>- Able to carry out independent research with scientific and practical value in the field of international economic relations management, logistics or transportation, to defend and present his / her opinion in a reasoned way.</li> </ul>
Final examination upon the completion of the study programme	<i>Master Thesis</i>

## Study programme forms

### Full time studies - 1 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>professional bachelor degree and/ or fifth level professional qualification in the field of social science, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>

Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>english</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>academic bachelor degree in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 1 years, 6 months - english

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>english</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>professional bachelor degree and/ or fifth level professional qualification in the field of social science, or comparable education. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 2 years, 6 months - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	100
Admission requirements (in English)	<i>academic bachelor degree in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 2 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>english</i>
Amount (CP)	80
Admission requirements (in English)	<i>bachelor degree of social science in economics or management, or comparable education. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

**Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Full time studies - 2 years - latvian**

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>bachelor degree of social science in economics or management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time studies - 2 years - latvian**

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	60
Admission requirements (in English)	<i>professional bachelor degree and/ or fifth level professional qualification in the field of social science, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time extramural studies - 2 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	60
Admission requirements (in English)	<i>professional bachelor degree and/ or fifth level professional qualification in the field of social science, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

**Part time studies - 2 years, 6 months - latvian**

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>bachelor degree of social science in economics or management, or comparable education</i>

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>bachelor degree of social science in economics or management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	2
Duration in month	6
Language	<i>latvian</i>
Amount (CP)	80
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6



Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 3 years - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	<i>3</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>academic bachelor degree in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time extramural studies - 3 years - latvian

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>3</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>academic bachelor degree in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 2 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	2
Duration in month	0
Language	<i>english</i>
Amount (CP)	80
Admission requirements (in English)	<i>professional bachelor degree and/or fifth level professional qualification in the fields of law, engineering science and technologies, manufacturing and processing or civil engineering, or comparable education. English language proficiency level test</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in management of international economic relations</i>
Qualification to be obtained (in english)	<i>International Relations Manager</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

The study program is implemented in full-time intramural form in Latvian and English.

Option 1 of the professional Master's study program "Organization and Management of International Economic Relations" (students who have acquired a Bachelor's degree and / or a fifth level professional qualification in the field of social sciences) or option 3 (students of the previous study program) graduates with a Bachelor's degree and / or a fifth-level professional degree in Law, Engineering and Technology, manufacturing and processing or construction), graduates have been awarded only with a a professional Master's degree in International Economic Relations. In these cases, the professional qualification of International Relations Manager was not awarded.

In view of the Higher Education Quality Agency's remark received in February 2020: "... Please note that after completing the Professional Master's program, it is only possible to award a professional qualification to students who have already obtained the International Communication Manager Professional Qualification at the previous level ..." and according to the Cabinet of Ministers Regulations No.512 of 26 August 2014 "Regulations on the State Standard of the Second Level Professional Higher Education", the draft decision on amendments to the study program referred to - add the International Relations Manager's Professional Qualifications to be awarded to graduates under Options 1 and 3 of the program (unless the International Manager's qualification has been obtained at a previous level of study).

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Analyzing changes in the number of students from academic year 2013/2014 to the academic year 2018/2019, it can be concluded that the total number of students decreased from 76 to 44 students (Appendix 5). This can be explained by demographics and the decrease in the total number of students in the country, as well

as by the fact that the tuition fee was increased, but the number of state budget funded seats was not increased during the last 6 years.

Study program has been implemented only as a full-time study program.

Since academic year 2016/2017 the program has been also implemented in English. The number of students studying in the English language is increasing every year – from 4 students in 2016/2017 to 6 students in academic year 2019/2020. By December 2019, a total of 14 students have been enrolled in the program implemented in English (6 of whom have been enrolled in the first year). The increasing number of students shows that the program is internationally recognized and appreciated.

State budget funded seats are available for the study program implemented in the Latvian language. By the type of funding, there are only 19 state budget funded seats in the study program, which is 43.00% of the total number of students. This is both a positive factor, as it points to the demand and high quality of the study program in the labor market, and a negative factor – many students who would like to study at the program cannot afford it and prefer to study at other programs with more state budget funded seats. Every year, in the process of enrolling new students, there is a great competition for state budget funded seats – about 5 students per state budget funded seat (*Appendix 1.2.1. Enrollment statistics in professional Master's study program*). This reflects the high appreciation of the program by prospective students.

The dropout rate of the students is the highest in the first and second years, mostly due to poor study results. A total of 30 students, or 60.00%, have been expelled for failure over a 6-year period (*Appendix 5*). Most students were unsuccessful in exact study courses, which showed that the knowledge gained in secondary school in this field was not sufficient.

The English language program, on the other hand, had the highest students' drop-out rates in the first year, which was mainly due to the failure to start studies after matriculation. In total, 2 students from the total number of foreign students who have been expelled after matriculation have been deducted for non-commencement of studies (*Appendix 5*).

In the professional Master study program "Organization and Management of International Economic Relations", English is the language of instruction of about 50% of the study courses implemented for the students studying in the Latvian language. This is due to the fact that graduates will have to work in the international environment and have a high level of English proficiency in their profession.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The main tasks of the study program are as follows: to educate the students, ensuring acquisition of professional Master degree in International Economic Relations and professional qualification “International Relations Manager”, as well as to promote their competitiveness in the changing socio-economic conditions and international labor market, to ensure achievement of study results (knowledge, skills and competences) according to level 7 of the European Qualifications Framework complying with the National Education Standard.

The specific aims and tasks of the program are defined in accordance with the strategic aim and main tasks in cooperation with specialists and employers in the field of international relations.

The study program “Organization and Management of International Economic Relations” is designed to educate and train senior specialists and heads of organizational units in the field of international economic relations according to the requirements of the global labor market. The main emphasis in the study process is placed on the development of professional and practical competences based on scientific achievements, theoretical knowledge and field specifics. Considering the specifics of the field, some of the courses are conducted in English in order to improve the use of professional terminology in the context of international relations and to facilitate co-operation with institutions, organizations and companies of other countries. Academic staff of the University as well as representatives of the industry and highly qualified practitioners, whose practical experience has been gained and developed at the companies and institutions of the field, are involved in the implementation of the study process.

The study program provides two specializations:

- Management of international economic relations;
- Business logistics and transport economics.

A graduate of the study direction “Management of International Economic Relations” can pursue a career in international business, commerce and international chains (company networks), as well as in various manufacturing, sales and service companies, in international marketing strategies, export and sales departments and departments, develop and seek new market opportunities and partners worldwide. Similarly, graduates can successfully work in the European Union, state and municipal institutions and non-governmental organizations both in Latvia and abroad.

International Relations Manager creatively and innovatively plans and implements international communication strategy and tactics in accordance with the goals of his / her workplace, analyzes, evaluates and improves international economic relations issues, plans, coordinates and supervises the work of the unit; coordinates its activities with the head of the organization, state, local government, non-governmental institution or international organization.

Graduates of the study direction “Business Logistics and Transport Economics” work in companies engaged in logistics, international and domestic freight or passenger transport, wholesale, retail, manufacturing and service provision, as well as in state and municipal institutions, which are related to transport and / or the logistics industry or provides for the management and organization of logistics services.

The program is implemented in both Latvian and English. The program regularly participates in the EDUNIVERSAL rating, gaining an ever higher rating every year, for example, in 2019 the program was ranked 4th in Eastern Europe.

Upon completion of the study program, the student acquires a Professional Master Degree in Management of International Economic Relations or a Professional Master Degree in Management of International Economic Relations a and a 5th level qualification International Relations Manager (Fifth level of professional qualification, corresponds to the sixth level of the Latvian Qualifications Framework).

On 17 August 2016, substantial changes were made to the study programme. The nature of the changes was the change in the size of the studies, the duration of the studies, the change in the requirements for admission in the two variations of the studies up to then, and the inclusion of two new variations of the study.

The expert proposal was to support all the changes submitted, thus providing the most appropriate studies for students with different previous education.

As an only expert recommendation, was pointed out that the study programme should include a course “Latest research approach in field” According to this, the study programme includes the study course “Methodology of Statistic Data Processing and Analysis” with volume of 4 CP, which teaches both the latest research approaches in the sector and the processing and analysis of statistical data to ensure the scientific veracity of research.

The study program is implemented in the volume of 60 CP, 80 CP and 100 CP in order to fulfil the provisions of the Cabinet of Ministers Regulations No. 512 “Regulations on the National Standard for the Second Level Professional Higher Education” that *“The duration of full-time studies of the master’s program is one to two years, provided that the total duration of bachelor’s and master’s studies is not less than five years”* and specified in Paragraph 28 that *“in the master’s program the choice of study courses, content and volume of study courses, as well as internship content for the degree to be obtained is determined **according to the professional standard** (if it is approved by the Tripartite Cooperation Sub-Council for Vocational Education and Employment – PINTSA) ”*. In this case, the content of the study program is determined by the **professional standard “International Relations Manager”** approved by PINTSA on 11 December, 2019.

**The 100 CP studies** are applicable to students who have obtained an academic **bachelor’s degree** in the previous study period to ensure the provisions of Paragraph 23.3: *“The compulsory content of the master’s program consists of **internship in the volume of at least 26 credit points**, if it is intended for graduates of the bachelor’s program”* and specified in Paragraph 27

that “*students of the master’s program with a previously obtained **academic bachelor’s degree** after successful completion of the master’s program obtain a fifth level **professional qualification**”.*

Thus, **in order to simultaneously ensure all** the above-mentioned **requirements** of the Cabinet of Ministers Regulations No. 512, the 80 CP program, with the duration of full-time studies is 2 years (including internship in the volume of 6 CP), adds a compulsory **internship in the volume of another 20 CP** specified in Paragraph 23.3 thus reaching the volume of 26 CP), **consequently the volume of the study program increases to 100 CP**.

Admission to the program is based on an assessment of prior education and / or qualifications:

Option 1 - Bachelor's degree and / or level 5 professional qualification in the social sciences (at least 4 years' education) or equivalent;

Option 2 - Bachelor of Science in Economics or Management;

Option 3 - Bachelor's degree and / or level 2 professional higher education in the areas of Law, Engineering and Technology, Manufacturing and Processing or Construction;

Option 4 - Bachelor's degree in Law, Engineering and Technology, Manufacturing and Processing or Construction.

In order to achieve the aim of the program and the results to be achieved, students enrolled in one of the admission options must acquire a certain level of knowledge and skills. This is reflected in the study plans (see Appendix 9). For example, if a student has previously obtained an undergraduate degree in one of the thematic areas listed in Option 4, the duration of the internship is 26 weeks. In order to consolidate the theoretical knowledge acquired in practice. Likewise, if a student has been admitted in accordance with the previous education and qualifications specified in Option 3, then the economics and management unit courses must be taken, as they have not been acquired in previous education. This ensures the same level of knowledge and skills for the graduates of all the variations enrolled in the program.

Applicants are admitted to the full-time higher education program on the basis of a weighted average grade of previous education.

The program is structured in such a way as to ensure in-depth acquisition of knowledge for graduates of professional programs who have already obtained a qualification in the field of social sciences but who have not previously obtained a qualification in this field or have an academic degree have a possibility to obtain both professional Master's degree and qualification *International Relations Manager*.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of**

## Studies and Implementation Thereof)

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The volume of the Master program determined by the previously acquired education and its corresponding study variant. The volume of the Master study program (60 CP - option 1) consists of study courses (34 CP), internship (6 CP) and state examination (20 CP), that includes development and presentation of the Master Thesis. The volume of the study program (80 CP - option 2) consists of study courses (34 CP), internship (26 CP) and state examination (20 CP), while the volume of the study program (80 CP - option 3) consists of study courses (54 CP), internship (6 CP), and state examination (20 CP). The volume of the study program (100 CP - option 4) consists of study courses (54 CP), internship (26 CP) and state examination (20 CP). The choice of the study courses of the Master's program, the scope and content of the study courses, as well as the content of the internship are developed according to the acquired professional degree and professional qualification according to the profession qualification requirements of *International Relations Manager*.

Almost every year changes are made in the content of the study courses and in the content of the study program, in accordance with the trends of the field, as well as the recommendations of the students for the improvement of the program content. No significant changes were made to the study program in the academic year 2013/2014. Existing study courses and methodological materials were revised during the academic year. Certain courses are offered in English and the number of courses offered in English is increased.

In the academic year 2014/2015, in accordance with the decision of the RTU FEEM study field "Management, Administration and Real Estate Management", the study program was supplemented with the study course *Practice* in the amount of 6 CP.

In the academic year 2015/2016, it was decided to admit foreign students as well and the implementation of the professional Master's study program in English was approved.

During the academic year 2016/2017, the Master's professional study program underwent significant changes, widening the admission rules as well as changing the structure of the study program. Changes were made on the basis of the Cabinet of Ministers of the Republic of Latvia, Regulation Nr. 512 "Regulations on the National



Standard of the Second Level Professional Higher Education” and the decision of the RTU Senate meeting. The study program content (60 CP) excluded course *Special English* 4 CP from Part A (compulsory courses) and included 2 CP in the *Development of the World Economy* 2 CP and *Strategic Management*, from the Specialization study courses (B1) were excluded courses *Development of the World Economy* 2 CP and *Strategic Management* 2 CP, in Part B1 (professional specialization courses) including courses *Special English* 4 CP and *Quality and Environmental Management* 2 CP (both directions), but courses *Psychology* (2 CP) and *Management Organization* (2 CP) were excluded from Part B2 (Humanities and Social Studies).

In addition to the content of the study program (80 CP, previous education - Bachelor's degree in Economics or Management) *Special English* language course 4 CP was excluded from Part A (compulsory courses), including courses *Development of the World Economy* 2 CP and *Strategic management* 2 CP in Part A (compulsory courses). Part B1 excluded study courses *European Union Organization and Functions* 2 CP, *International Competition* 2 CP, *Business Logistics (Special Course)* 2 CP, *International Transportation Law* 2 CP, *Taxation Abroad* 2 CP, *Customs Legislation in Latvia and Abroad* 2 CP, *Quality Systems Management* 2 CP, as well as was decreased amount of part B (compulsory elective study courses) from 18 CP to 10 CP and B1 (professional specialization study courses) from 16 CP to 8 CP;

Part B1 (professional specialization courses) excludes *Development of the World Economy* 2 CP and *Strategic Management* 2 CP, including *Special English* 4 CP and *Quality and Environmental Management* 2 CP (both study fields), but the study courses *Psychology* (2 CP) and *Management Organization* (2 CP) were excluded from Part B2 (Humanities and Social Studies).

Changes were made based on course content audit results and industry trends. The course *Practice* 26 CP was re-approved and improved, and included in the structure of the study program.

During the 2017/2018 academic year, major changes were made to the Master's professional study program, with the addition of new courses and the deletion or transfer of study courses to other parts in the study program structure. *Globalization and Integration Processes in Global Economy* (2 CP), *Econometrics* (2 CP) and *Strategic Management* (2 CP) were included in the compulsory part of the study program, including the study courses *Methodology of Statistic Data Processing and Analysis* 4 CP and *Strategic Management in International Companies* 2 CP. From the limited specialization (B) professional specialization of the study program B1 specialization International economic Relations, study course *International Business Forecasting* 2 CP and course included in the list of common study courses of the limited specialization (B) professional specialization, part B1 *Organizations and Functions of the European Union* 2 CP was excluded, including *Politics and International Economic Relations* 2 CP and *Globalization and Integration Processes in the World Economy* 2 CP. In the list of common specialization study courses study course *The European Union Governance and Policy* 3 CP was included.

During the 2018/2019 academic year, several major changes were made to all study options. From Part A Compulsory Courses *Organization and Management of International Economic Relations* 2 CP and *Organization and Management of International Economic Relations (study project)* 2 CP were replaced with courses *International Business* 2 CP and *International Business (study project)* 2 CP. Part B1 “Professional specialization study courses” in the specialization “Business Logistics and Transport Economics” included the course “Global Market and Supply Chain” 2 CP, but from B1 “Professional Specialization Study Courses” the study course *Business Logistics Fundamentals* 2 CP and the study course *Logistics Fundamentals* 2 CP were excluded, but in the B1 Professional specialization study courses from common specialization courses (1st and 2nd study program version), study course *The European Union Governance and Policy* 3 CP was excluded.

In order to consolidate theoretical knowledge and gain experience in the field, the internship of 6 or 26 CP is implemented. The higher education institution concludes an agreement with the employer and student. When defining the aims and tasks of the internship, the content of the internship includes the student’s acquaintance with the management structure and operating principles of the company where the students undertakes internship, the specifics of the field, etc. Representatives of the organizations with whom the agreement on the implementation of the internship has been concluded take part in setting the aims and tasks of the internship and evaluation. The student achieves the aim of the internship based on the acquired knowledge, skills and competence.

The structure of the program and other formal conditions comply with the requirements set in the national legislation and decisions of RTU Senate. As a result of professional studies, the student acquires the knowledge and necessary professional competence, which correspond to the requirements of the professional Master’s degree and allow starting a professional activity corresponding to the specialty. The structure of the study program is shown in Table 10.1 (see appendix 10).

The program has two specializations: International Economic Relations Management and Business Logistics and Transport Economics. For both specializations, 24 CP or Part A compulsory courses are common, but the directions are different for Part B, field of practice, assignments, topic of Master's Thesis, etc.

In order to bring the content of the program as close as possible to the needs of the labor market, visiting lecturers are involved in the study program, i.e., experts, who actively participate in academic, methodological and scientific work. The academic staff of the study program, in cooperation with visiting lecturers, develop the content of the study courses and choose the most appropriate teaching methods. Visiting lecturers participate in the development of various regulations (e.g., regulations on the planning, implementation and defense of internship, study projects and Master’s Theses, etc.).

Employers' representatives regularly take part in the work of the Graduation Paper Defense Committee to evaluate students' knowledge in the study program. By participating in Thesis Defense Commissions, industry representatives are able to make suggestions on student research topics that are relevant to the labor market and are also taken into consideration in other academic years. Employers positively value students' performance in researching and defending graduation theses, which sometimes also culminates in inviting students to participate in employer-organized projects or job vacancies.

Term papers and graduation papers are also developed in cooperation with industry representatives. For example, study project "Study of Latvian Medical Services Export Market in Priority Countries" was developed in cooperation with Latvian Health Tourism Cluster. The best master's Theses of the students of the program, in their turn, are developed in cooperation with the industry organizations where the student undertook practice or where he / she worked. The best Theses have been developed about topics as:

- "Problems and Development of External Translation Services in Translation Companies in Latvia" (2016);
- "Export Strategy of Latvian Higher Education in Asian Regions" (2016);
- "Using Tracking Systems to Container Flow Management" (2017);
- "Improvement of Flight Cost Index Calculation" (2017);
- "Improvement of International Container Transportation in Latvia" (2017);
- "Choice of International Business Conflict Resolution Mechanisms" (2018);
- "Latvian Welding Services Company's Strategy for Entering the Finnish Market" (2018);
- "Using International Experience to Improve the Latvian Business Environment for Interactive Gambling" (2019);
- "Models of Multinational Enterprises in the Telecommunication Market" (2019);
- "Improving the Ecosystem of Latvian New Enterprises to Promote International Competitiveness" (2019);
- "European Business Support Network Export Services Improvement Opportunities" (2019).

Knowledge of the students of the study program are also competitive in different foreign scholarship competitions. For example, in the academic year 2019/2020, a 2nd-year student received a \$ 30,000 grant from the Baltic-American Freedom Foundation (BAFF), an opportunity to improve her professional knowledge while working in a company in the US for 6 months to one year. The BAFF internship program offers the opportunity to gain international professional experience in any field of students choose.

RTU has established the Alumni Gold Fund, which includes the most outstanding and capable graduates of RTU study programs, judging by their academic achievements and social activities.

- In the academic year 2013/2014 from the professional Master's study program, graduate Evita Andersone was included in the RTU Gold Fund ;
- In the academic year 2014/2015 from the professional Master's study program, graduate Linda Tuvikiene was included in the RTU Gold Fund;
- In the academic year 2015/2016 from the professional Master's study program, graduate Evija Kiedere was included in the RTU Gold Fund;
- In the academic year 2016/2017 from the professional Master's study program, graduate Līga Bērzkalne was included in the RTU Gold Fund;
- In the academic year 2016/2017 from the professional Master's study program, graduate Diāna Jaundāldere was included in the RTU Gold Fund;
- In the academic year 2018/2019 from the professional Master's study program, graduates Krista Buša, Rita Elste-Tomsone, Toms Ķirsis, Vera Karpoviča were included in the RTU Gold Fund.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program "Organization and Management of International Economic Relations" has defined 8 achievable learning outcomes. The aims set in the study course descriptions are closely linked to the learning outcomes of the study program. The course content is subordinated to the achievement of learning outcomes (see Appendix 8). Every year the content of the study course is audited, which helps control and update the course content, teaching methods and learning outcomes to be achieved.

Every year, the content of the study program is assessed. During the audit, the practical implementation of the study program is evaluated, its compliance with the latest trends in the field is assessed, as well as the incorporation of scientific research results into the study process is taken into account. The renewed pedagogical teaching methods are also evaluated. The purpose of the assessment is to improve the content and teaching methods of the study program.

As a result of the audit, changes are made in the content of the study program during the year, by including the current issues of the industry in the study content.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and**

**how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The didactic concept of the study program is based on the use of the latest and most advanced teaching methods. It provides the development of the study content and the organization of the study process, which ensures the sequential and in-depth acquisition of the knowledge provided within the study program and is oriented towards solving real practical cases and problems, and an in-depth study of the main theoretical and practical issues of business logistics. This includes stimulating methods of knowledge acquisition as well as interactive collaboration among students, academic staff and internship supervisors, and allows for free discussion in an intercultural environment. Within the study program, the following modern study methods as group work, case studies, seminars, discussions, field trips to industry companies in order to acquire and/or reinforce the knowledge and skills developed in an appropriate work environment, lecture explanations using PowerPoint or other presentations are used.

The study program is implemented in four variants, full-time and part-time intramural form and part-time extramural form in Latvian and English, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. Since full-time students have less practical experience in the field of study, methods such as excursions to industry companies, lectures with industry experts, etc., are used. On the other hand, part-time students, who mostly have practical experience, are more likely used teaching methods as lectures, practical works, group works, homework and studies with analysis of different situations and their interpretation from both theoretical and practical aspects. The emphasis in the part-time extramural study process is on the

students' independent work, using both problem-based learning and situation analysis (case study) and the teacher's advisory role. For example, in the study courses Fundamentals of Logistics, International Business Planning etc. students plan their activities according to their own learning goals and independently manage their own learning process, while assessing themselves and their achievements, as well as analyzing what they have learned in the course and in the learning process as a whole. In the study course Quality and Environmental Management situation analysis is used, analyzing the existing processes and developing process improvement opportunities, in the study course Personnel Management (basic course) problem-based learning is used.

As it was stated above, then in addition to theoretical classes in the classrooms, students are given practical field trips to the largest companies and organizations in the field both in Latvia and abroad. Study tours are designed both for a deeper understanding of individual topics within a course and as thematic study tours.

In academic year 2013/2014 thematic study tours and practical classes were organized at the following companies and institutions: Ltd. Stenders, JSC Valmieras stikla šķiedra, Ltd. Valmiermuižas alus, Ltd. Papīrfabrika Līgatne, the Supreme Court of the Republic of Latvia, the temporary residence of the President of the Republic of Latvia in the House of Blackheads and the Saeima of the Republic of Latvia. Similarly, the traditional study tour to EU institutions and companies in Brussels, Belgium, was also organized academic year 2013/2014. Workshops and lectures were organized at the European Parliament, the European Commission and the national representatives. Study tours to Tienen Sugar Factory and other enterprises, as well as to the Europe Business Center were organized.

In academic year 2014/2015, thematic study tours and workshops were organized at the following companies and institutions: SJC Latvian Railways, Do It Ltd. and EU House. The traditional study tour to the EU institutions and companies in Brussels, Belgium, was also organized. Workshops and lectures were held at the European Parliament, the European Commission, national representatives and the Europe Business Center. Within the framework of the program a one-day trip to Luxembourg was also organized, where meetings were held at the EU Court of Justice, the European Investment Bank and Arcerol Mittal.

In academic year 2015/2016, the annual study visit to Brussels (Belgium) took place 6 months behind schedule because of terrorist acts at the Brussels airport. During these 6 months, regular lectures were held at the EU House (Riga, Latvia), as well as a practical study tour was organized in cooperation with Ltd. Schenker, during which the students focused on various international transportation issues, as well as warehouse operations and the railway transportation.

In academic year 2016/2017, thematic study tours and workshops were organized at the following companies and institutions: EU House, Ministry of Economics, MSC Shared Service Center, Riga Universal Terminal. The same study tours and workshops were held in academic year 2016/2017. An annual study visit to Brussels took place, where students attended 3 thematic lectures at the European Commission, met a

member of the Vice President of the European Commission for the Euro and Social Dialogue, visited the European Parliament, and Parlamentarium Visitor Centre. A lecture by Artis Pabriks MEP was attended. The program also included a lecture and discussion on energy issues at Rioglass Solar, a solar and renewable energy technology company, as well as a traditional visit was organized to the chocolate company Concept Chocolate. The students also had the opportunity to visit the Embassy of the Republic of Latvia in the Kingdom of Belgium and the Permanent Representation of the Republic of Latvia to the European Union, as well as to attend a lecture and a discussion at the Europe Business Center led by Peter Sennekamp.

Also in the 2017/2018 academic year, students had the opportunity to visit different industry companies as Wellman Logistics Ltd. and others.

In academic year 2018/2019, a study tour to Tallinn University of Technology (TTU) was organized, where students were acquainted with the university as such, participated in lectures organized by TTU and met with Estonian entrepreneurs. The students also had the opportunity to visit some internationally renowned Estonian companies such as Tallink Grupp and LHV Bank.

By organizing study tours and study visits, the study program is linked to the specifics of the field, students acquire not only theoretical knowledge, but are able to relate it to everyday situations, analyze problems and argue their opinion.

The interactive e-learning environment of RTU ([www.ortus.rtu.lv](http://www.ortus.rtu.lv)), created on the Moodle platform, is used for the implementation of the program. The students of the study program as well as the academic staff and visiting lecturers regularly use it. The portal provides the students with all the relevant information during the study process. It provides up-to-date courses (abstracts, requirements for successful completion of the course, lecture plan, materials for lectures and practical classes, recommended literature, etc.) and databases, email, etc. In the e-learning environment, the lecturers place various tests and assignments for self-assessment of the student's knowledge, and the system allows for the creation of various mid-term tests and final tests. Within this portal, it is possible to communicate with every lecturer, but within the framework of current courses also with fellow students. There are discussion forums, regular surveys on the content, quality and academic staff who deliver study course presentations, use interactive whiteboard and other audio / video and technical aids.

Concerning academic aspects, the individual approach is provided in accordance with the methodology approved by RTU Rector's Order as of 28 October 2005, which stipulates that the lecturer should provide 15% tutorials of the total number of lectures to every 25 students. In addition, separate tutorial hours are provided for the supervision of study papers and projects, internships and graduation papers. Pre-test tutorial is organized before tests and exams. If necessary, students can contact the instructor directly outside the tuition hours by posting current questions in the form of news or relevant study course in the forum ORTUS or by email.

At the end of each semester, the instructors of the study course submit their course assessments to record-keepers, as well as record them in the ORTUS system for a particular study course. Students' learning outcomes are analyzed both in the course group meetings with the students and in the meetings organized by the study program administration.

The results of the students' knowledge assessment are discussed at the department meeting twice in the academic year (at the end of each semester); they are collected and evaluated by the administration of the study program and serve as a basis for further improvement of the study process. The learning outcomes are discussed and analyzed in cooperation with the instructors involved in the study program.

The description of each study course includes a section on the skills and competences that the student must acquire during the course (see the Register of Study Courses: [www.ortus.lv](http://www.ortus.lv)). Problem-solving skills are developed in case studies, study projects, which are supposed to be independently elaborated, individual activity of students, according to the latest trends of logistics development in the world and in the European Union; as well as obeying the status and characteristics of Latvia as a transit country. In the form of dialogue, students can express their opinion, share their experience and explain the problem, as well as understand the nature of the topic. The topics of study projects are chosen not only according to the field and the latest developments in the international context, but also according to the recommendations of the industry. For example, the Ministry of Finance has expressed its gratitude for the elaboration of the study work of the student group "Improving the International Competitiveness of the Provisioning Services of Latvian Precious Metals and Their Articles". The thesis contains a comprehensive analysis of the assay monitoring system and evaluation of financial data in Latvia, evaluation of the practice of other countries in the respective field and recommendations for improvement of proving of Latvian precious metals and articles thereof, taking into account foreign experience.

On May 29, 2017, RTU Senate approved "New Edition of the Regulation on the Assessment of Learning Outcomes", which was included in RTU Study Regulations. Interim tests (assessment tests, independent work, etc.) are organized according to the Regulation in order to ensure systematic control of the acquired knowledge. It also introduces the procedure for passing tests and examinations, the terms and conditions for academic arrears, responsibilities of the academic staff regarding the students' assessment, the student's rights and duties in the tests, and the appeal and review procedures. Interim test results and assessments are published in the ORTUS system for a given study course. Errors are analyzed and students are informed about them. Error analysis enables students to better understand uncertainty and eliminates a lack of knowledge or misunderstanding of certain issues, which increases students' motivation to achieve ever better results.

Students can participate in the improvement of the study process directly, by expressing their thoughts to: the instructor of the study course; the head of the



academic office; the head of the study program; the head of the department or, with the help of the student self-government. The student self-government is represented at the Council of the Faculty of Engineering Economics and Management, RTU Senate commissions, as well as at RTU Academic Assembly.

In administrative matters, students are given the opportunity to meet with the program management during admission hours to address individual issues. In case of problematic situations, students are invited to discuss them with the management of the study program. Current information is placed at the website, messages are sent to students in the ORTUS system, e-mail and telephone are used for individual communication. Students' meetings with the study program director are organized on a regular basis, providing students with the opportunity to discuss current issues. In this way, maximum quality of the study process is achieved by responding to student requests.

Student surveys and student meetings are of particular importance, which are organized on a regular basis twice a year and reflect the students' views on both a particular course and the organization of the study process. In addition, at the end of each semester students are provided with questionnaires, at RTU electronic environment ORTUS, where students express their opinion on the implementation of a particular study course, and the evaluation of the instructor's work. The results of the surveys are summarized and discussed by the administration of the study program and at the meetings of the Department of International Business, Transport Economics and Logistics; and at the FEEM Council, if necessary.

Consequently, the principles of student-centered education are taken into account in the implementation of the whole study process.

### *1. Students' involvement in the study process and content improvement*

RTU has developed procedures that provide students with feedback on the quality of the study process (questionnaires, regular meetings with the program director, etc.) Thus, students have the opportunity to influence their study process. Students are regularly involved in the quality assessment of study programs, participate in decision-making and advisory bodies, as well as are involved in drawing up a self-assessment report.

### *2. Learning outcomes*

Mobility resources are used in the study program "Organization and Management of International Economic Relations" to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers.

### *3. Mobility*

Mobility resources are used in the study program “Organization and Management of International Economic Relations” to improve the pedagogical process of the institution, as the student-centered approach to education is based on an advanced pedagogical process. Instructors from foreign universities are involved in the implementation of the study program; thus, not only the students, but also the academic staff involved in the implementation of the program benefit from such cooperation, adopting best practice shared by the visiting lecturers.

#### *4. Social dimension*

For students of this program, the study process is flexible enough to allow them to combine work/family and study life. This is evidenced by the results of the graduate survey (Appendix 2.3.1. *Graduates feedback about the study program*), which indicates that almost 79% of students work through the studies. Similarly, full-time students have the opportunity to switch to part-time study if necessary, to combine study and work. A positive aspect is that RTU library facilities are available to students 24 hours a day and on weekends.

#### *5. Teaching and learning methods*

Different teaching and learning methods are used in the process of program implementation. For example, study projects are developed, group work is fulfilled, some courses use a method that allows students to evaluate and learn from each other. Study tours and guest lectures are also held regularly (see page 8.-9.). Students have the opportunity to receive individual tutorials with the academic staff, including communication via e-environment, Skype etc.

#### *6. Learning environment*

During the implementation of the program, there is cooperation between librarians and academic staff with the aim to improve the teaching and learning process. During the first year of studies, students are introduced to the resources and databases available in the library. In addition, both tutors and students have access to appropriately arranged research and learning. Both students and academic staff can use the Bloomberg Laboratory with various databases during their research process.

#### *7. Development of competences of the academic staff*

Academic staff members involved in the program are provided with regular opportunities to develop methodological and didactic skills. Discussions on the use of teaching and learning methods are also included in the process of the academic staff's competence development, incl. innovative teaching methods. In the framework of the international project “Development of University-level Professional Logistics Education at Central Baltic States”, the lecturers are involved in the development of new study courses, sharing experience in the use of study methods, materials and programs in Logistics Managers training with Swedish, Finnish and Estonian universities.

## *8. Extra-circular activities*

The program management supports the student self-government and encourages students to become involved in it, thus allowing students to develop their autonomy, giving students the opportunity to implement ideas and opportunities for extra-curricular learning.

Students' requests to develop their ideas in project competitions, business incubators, etc. are also supported.

Every student in the program is offered opportunities to participate in extra-curricular activities (sports teams, dance groups, choirs, debating associations, etc.). All this points to active out-of-school life and out-of-study opportunities for students.

Students of the study program are also involved in scientific work and research on topical issues of the field, participate in local and international conferences. Each year the students scientific conference is organized in two parts – in the spring semester and autumn semester. After each part of the conference, the research is compiled, and the theses are published.

In academic year 2013/2014, theses of Student Scientific Conference “Topical Issues of International Economic Relations, Transport and Logistics 2013 (Part 2) (27–28 November, 2013, RTU Press, Riga, 2014, 79 p.) and Theses of Student Scientific Conference “Topical Issues in International Economic Relations, Transport and Logistics 2013” (Part 1) (24–26 April 2014, RTU Press, Riga, 2014, 118 p.) were published. In total, theses of research of 23 students were published.

Students have the opportunity to participate in the annual RTU International Scientific Conference.

In academic year 2014/2015, theses of Student Scientific Conference “Topical Issues of International Economic Relations, Transport and Logistics 2014” (Part 2) (26–27 November, 2014, RTU Press, Riga, 2015, 98 p.) and Theses of Student Scientific Conference “Topical Issues in International Economic Relations, Transport and Logistics 2014” (Part 1) (25–28 April 2015, RTU Press, Riga, 2015, 129 p.) were published. In total, theses of research of 28 students were published.

In academic year 2015/2016, theses of Student Scientific Conference “Topical Issues of International Economic Relations, Transport and Logistics 2015” (Part 2) (23–26 November, 2015, RTU Press, Riga, 2016, 76 p.). In total, theses of research of 19 students were published.

In the academic year 2016/2017, the joint sections of the 57th RTU Student Scientific and Technical Conference, Department of International Business, Transport Economics and Logistics, and Student Scientific Conference “Topical Issues of International Economic Relations, Transport and Logistics 2016” (Student Scientific Conference, 18–19 April 2017, and 23–24 November 2016, RTU Press, Riga, 2017, 100 p.) were published. The collection contains theses of research of 22 students of the

study program.

In academic year 2017/2018, 18 students participated in the student scientific conference “Topical Issues of International Economic Relations, Transport and Logistics 2017”. Since academic year 2017/2018, the theses of the student scientific conference have been available in electronic version.

In academic year 2018/2019, 16 students participated in the student scientific conference “Topical Issues of International Economic Relations, Transport and Logistics 2018”.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Internship is an essential part of the professional Master's study program. According to the study program, the volume of internship is: 6 CP - for students with previously acquired professional higher education or 26 CP (6 CP + 20 CP) - for students with previously acquired academic higher education. Internship has a set of internship tasks:

- to develop the student's ability to work independently in a business or professional environment;
- to make economically sound, practically applicable decisions to solve problems and / or topical issues;
- to develop and strengthen the student's communication skills, incl. ability to publicly present one's opinion and gain independent work skills.

The aim and tasks of the internship are closely related to the duties and tasks specified in the profession qualification requirements, which ensures the consolidation of theoretical knowledge and its application in practice. The internship supervisor at the place of the internship gives feedback (completes the questionnaire), which indicates the evaluation of the students' knowledge, theoretical preparedness, communication skills, etc. As a result, there is a continuous close link with the industry, thus enabling the curriculum to be further developed and improved to meet the requirements of the labor market. For each internship, the student draws up a report, which is presented in front of the internship assessment commission at the respective department.

Internship outside the educational institution is an integral part of the professional programs that students have to complete in accordance with Cabinet Regulation No. 512 “Regulations on the State Standard of the Second Level Professional Higher

Education” as of 26 August 2014, RTU Senate Decision No.467 “On the Structure of the Second Level Professional Study Programs” as of 29 April 2002, and RTU Senate Resolution No. 626 “The New Edition of the Internship Management Procedure at Riga Technical University” as of 28 January 2019.

The internship is conducted in accordance with the Regulation, the general requirements of which have been elaborated by RTU Senate. The Regulation is available at RTU homepage and ORTUS system.

Taking into account the above-mentioned documents, the administration of the study program has developed the Regulation “Methodological Guidelines for the Bachelor Professional Study Program “Business Logistics”” ([www.sesmi.rtu.lv](http://www.sesmi.rtu.lv)). For each student, this by-law is available in ORTUS. Prior to internship, a meeting with the director of the study programme should be organised, during which everything about the records of the internship, the course of the internship and the defence. During the internship, students communicate with the internship coordinator from the University side as well as the internship supervisor from companies side.

Pursuant to the Regulation, the place of internship may be a public authority, a company or an organization. The aim of the internship is to systematize, consolidate and expand the student’s theoretical knowledge and to acquire practical skills and abilities during the internship. Tasks performed during the internship should be directly related to the study program “Organization and Management of International Economic Relations” and/or study field in order to consolidate the theoretical knowledge acquired during the studies and to develop the ability to independently perform the assigned tasks during the internship, to study, analyze and solve problems.

During the internship, the student should:

- acquire the professional skills required by the professional qualification requirements to promote professional competence and apply industry-specific knowledge in practice;
- develop the ability to analytically formulate and address industry issues;
- acquire independent and teamwork skills;
- demonstrate an understanding of the laws and regulations governing the operation and management of the company, the business environment, occupational safety and health, quality control and environmental protection;
- apply the principles of professional ethics and corporate social responsibility.

Internship management issues are stipulated in the Regulation. The tripartite agreements concluded with companies and student-intern about student internship.

Students of study program implemented both in Latvian and English have the opportunity to choose the internship place from both places of previous years' and those offered by industry as at that moment and to choose others at their own discretion (provided that they correspond to the description of the responsibilities of the profession to be acquired).

Appendix 2.4.1 *List of students internship places* lists the most frequently chosen internship places of the professional Bachelor study program “Organization and Management of International Economic Relations” during the last three study years. The table demonstrates that Latvian Investment Development Agency, Ltd. DHL Latvia and Ministry of Economics are the most popular companies chosen for internship.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The students formulate and elaborate the content of the graduation paper according to the qualification to be acquired, which means that the graduation paper deals with different international relations management or logistics processes and their improvement, which are necessarily substantiated in the section of economic calculations. Equally the thesis indicates the topicality of the topic, analyzes the researched field, indicates the novelty of the thesis, which is scientifically proven.

Analyzing the performance during all academic years, it can be concluded that graduates mainly obtained grade “9” (excellent) (24.79%). Grade “8” (very good) was obtained by 23.93% of graduates, while grades “7” (good) and “8” (very good) – by 23.08% and 8.55% of graduates, respectively. None of the graduates received grade “4” (almost satisfactory) for the graduation paper.

Master theses are reviewed only by representatives of the industry. Graduation paper viva-voce commissions always involve leading experts in the field, experts with great work experience. The commission consists of 6–7 members, of whom 4–5 are representatives of the field (including the chair of the commission who has a Doctoral degree) and 1–2 are employees involved in the implementation of the study program. This ensures the involvement of employers in the study process, which directly implies a regular link between the study program and the labor market. Leading employees of Latvian Investment and Development Agency, Ltd. Pure Chocolate, Elko Grupa, Albert Berner Ltd., Ministry of Economics and other institutions and companies participated in the defense of Bachelor Theses.

Analyzing the compliance with the state standard it can be concluded that:

- the aims of the study program are in accordance with the requirements set by the state education standard;
- the volume of the study program and its structural division corresponds to the one defined in the state education standard;
- the content of the program meets the requirements of the state standard. The core parts of the program are study courses, internship outside the higher education institution, and state examination – the Bachelor Thesis.

- Program evaluation principles are in conformity with the state education standard:
- positive achievements are summed up;
- assessment is compulsory at the end of each study course;
- overall assessment, consisting of several types of assessment tests;
- openness and clarity of requirements – the administration or academic staff of the study program explain examination requirements to all interested persons at the beginning of the study course; the examination requirements are also available at the ORTUS e-study system together with the course description;
- variety of tests – independent work, tests, seminars, public presentation of study projects, tests, exams, public presentation of internship, Bachelor Thesis, etc.

The content and scope of tests correspond to the course description and the requirements of professional qualification (International Relations Manager) skills and knowledge. All prerequisites are stipulated in the description of each study course.

The content of the study program is designed according to the occupational standard (*International Relations Manager*). The evaluation of the conformity of the study program to the occupational standard is provided in Appendix 7. Accordingly, for each level of knowledge (perception, understanding or use) defined in the occupational standard, courses are developed with appropriate content/topics. Therefore, it can be concluded that the Master's professional study program "Organization and Management of International Economic Relations" meets the requirements set by the occupational standard

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

RTU Study Department regularly conducts surveys in the Ortus portal, including the survey on the evaluation of the work of the academic staff, which is organized twice during the academic year. In this way, students can provide feedback on the quality of the study courses and the professional performance of the academic staff. The results of the surveys serve as a basis for the improvement of the study process.

As a result of the surveys, it is possible to find out whether students are satisfied with the study process in general, the work of program administration and record keeping, as well as with the content of each study course and the qualification of the academic staff. The results of the surveys are discussed and analyzed at the department meetings.

Students can also make their recommendations for the improvement of the study process. Thus, for example, following the recommendations of the students, more attention is paid to field trips, as well as year by year new study courses are delivered

in English. For example, in academic year 2018/2019 and 2019/2020 in English was delivered courses as *International Business, International Marketing, Strategic Management in International Companies, Globalization and Integration Processes in the World Economy* etc. Similarly, on the basis of student questionnaire proposals, industry experts, highly qualified professionals are involved in teaching courses (see Appendix 4.1.1. Basic information about the academic staff involved in the implementation of the study program).

At the end of each academic year, graduate surveys are regularly conducted. Graduate surveys are conducted both centrally in the ORTUS system following a unified RTU survey standard and locally organized by the study program administration.

The graduates can express their opinion about the study process and its quality, as well as give evaluation of the administrative and academic staff of the study program, as well as assess employment opportunities after graduation, content of the study program, etc.

From academic year 2014/2015 to academic year 2018/2019, on average, 49.28% of the total number of graduates were surveyed each year (see Appendix 2.3.1. *Graduates feedback about study program*).

Graduates' overall satisfaction with the choice of the study program is high. From academic year 2014/2015 to academic year 2018/2019, on average, 67.42% of graduates were satisfied with the choice of the study program, 6.70% had a neutral opinion, but 24.64% were not satisfied with the choice of the study program.

The overall satisfaction of the graduates with the acquired theoretical knowledge is high. From academic year 2014/2015 to academic year 2018/2019, on average, 61.26% of graduates were satisfied with the theoretical knowledge acquired during the academic year, 16.06% of the graduates had neutral feedback, and 21.40% were not satisfied with the quality of the acquired theoretical knowledge. The highest number of the graduates satisfied with the acquired theoretical knowledge was observed in academic year 2018/2019 when 66.60% of the graduates were fully satisfied with the acquired theoretical knowledge, and in academic year 2015/2016, 23.50% of the graduates gave positive feedback.

Graduates positively evaluate the relationship between lectures and practical classes. From academic year 2014/2015 to academic year 2018/2019, on average 50.90% of graduates were satisfied with the lecture-to-practical class ratio, 29.26% had a neutral opinion, and 19.12% were not satisfied with the lecture-to-practical class ratio. The highest number of graduates satisfied with the lecture-to-practical class ratio was observed in academic year 2014/2015 and 2018/2019, when 33.30% of the graduates were fully satisfied with the lecture-to-practical class ratio. Taking into account the graduate survey results concerning the involvement of more experts and professionals in the study process, specialists are annually invited to deliver lectures.



Graduates positively evaluate the availability of study aids. From academic year 2014/2015 to academic year 2018/2019, on average, 82.52% of graduates were satisfied with the availability of study aids, 12.60% gave neutral feedback, while 4.14% were not satisfied with the availability of study aids. The highest number of graduates satisfied with the availability of the necessary study aids was observed in academic year 2018/2019, when 66.70% of , but the lowest number of graduates were fully satisfied with the availability of study aids, and in academic year 2015/2016, 47.00% of graduates gave positive feedback. Even though students have access to extensive library resources (see Appendix 2.6.1), and the library is open 24 hours a day, not all students are interested in seeking additional literature for their study process, as well as students and their learning habits are changing.

One of the most important indicators is the employment of graduates, which proves the necessity of specialists in the labor market. The employment of students and graduates of the study program “Organization and Management of International Economic Relations” is high. Students are mostly employed during their studies. From academic year 2014/2015 to academic year 2018/2019, on average, 95.10% of graduates were combining work and their studies, only 2.76% of graduates worked part-time. The highest student employment ratio during the study period was observed in academic year 2017/2018 and 2018/2019, when 100.00% of students were employed on a full-time basis, while the lowest employment rate was observed in academic year 2014/2015, when only 85.70% of respondents gave positive feedback.

In the survey, graduates also make recommendations for the improvement of the study program:

- To ensure partially implementation of study courses in English;
- to transfer the study project to the 1st semester, because writing a study project and practice report in one semester is too cumbersome
- More visiting lecturers specializing in the field could be attracted to the implementation of the study program.

The evaluation of the program, the study process, the acquired knowledge and practical skills demonstrate the necessity to constantly improve the curriculum according to the new developments of the field. All the results obtained in the surveys are used for the improvement of the study process.

For example, in academic year 2018/2019 and 2019/2020 in English eas delivered courses as International Business, International Marketing, Strategic Management in International Companies, Globalization and Integration Processes in the World Economy etc.

The opinion of the graduates of the 2016/2017 study year on the implementation of the study courses “Practical Placement” and “International Business (study project)” was also taken into account and starting from the 2017/2018 study year the study course “International Business (study project)” is implemented in the 1st semester, but the study course “Practical Placement” in the 2nd semester.

In the academic year 2015/2016, the graduates of the study program proposed to organize regular meetings with representatives of the field, as well as to ensure that the study courses are taught not only by theorists, but also by the field professionals. This was taken into account when improving the list of study program and academic staff in 2017, 2018 and 2019, therefore

currently about 40% of the academic staff are the field experts (see Appendix 4.1.2. *Academic staff involved in the implementation of the study program* and Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program*).

In order to ensure continuous monitoring of the program from the employers' point of view, the employers' opinions on the curriculum and students' knowledge in the field of international economic relations are collected and analyzed.

From academic year 2016/2017 to academic year 2018/2019, on average, the survey was undertaken by 14 employers who employed the students and/or graduates of the study program "Organization and Management of International Economic Relations" (see Appendix 2.6.2).

On average, 90.00% of employers characterized the students and graduates as responsible, accurate and disciplined. During the reporting period, on average, employers' satisfaction with students' and graduates' ability to meet work deadlines, as well as to perform duties and to address difficult situations, increased on average by 7%.

On average, 91.00% of employers considered that the theoretical knowledge and practical skills of the students of the program corresponded to the requirements of the labor market. 80% of employers particularly valued students' ability to delve deeper into work processes and to do a large amount of work quickly and efficiently.

97.00% of the surveyed employers evaluated the quality of students' and graduates' work as high; moreover, the work was done promptly, accurately, independently, as well as meeting deadlines and workplace standards.

The employers positively evaluated the business skills of program students and graduates, especially the ability to work individually and in a team, good communication and foreign language skills, knowledge of business etiquette and ability to adapt to different situations.

On average, 85.00% of employers considered that students and graduates of the program successfully used not only theoretical skills, such as knowledge in international trade or project financial planning, but also practical skills such as business communication, knowledge of foreign languages, analytical skills and logics.

According to the survey results, on average, 99.00% of employers introduced students or graduates to internal company regulations, databases, industry regulations, and standard office software required to complete their duties when starting internship or job.

When receiving employers' feedback about this study programme students - trainees, in 100% of questionnaires, entrepreneurs have highlighted that students have very good theoretical and practical skills and no recommendations for improving the content of the programme on the part of employers.

**2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

Since the study program in English is realized relatively recently, incoming mobility is only initiated via the ERASMUS +. In the 2018/2019 academic year, two students from Kuhne Logistics University (Germany) and one from Vrije Universiteit Brussel (Belgium) used the incoming mobility opportunities.

Students of the study program take an opportunity provided by international mobility programs. From academic year 2013/2014 to academic year 2018/2019, 8 students undertook Erasmus+ study mobility (see Appendix 5): 2 students went to Norway (Ostfold University College), by one student to France (ISC Paris Business School), Portugal (University of Aveiro), Estonia (Tallinn University of Technology), Hungary (Obuda University), Italy (University of Padova) and Croatia (University of Split).

Highly acclaimed study programs at partner institutions that offer international economic relations or logistic courses are selected for mobilities. The feedback from the partner universities on the study program "Organization and Management of International Economic Relations" is very positive, confirming that the study program of RTU corresponds to the international quality level.

In the reporting period, 4 students went on the traineeship mobility: to enterprise „Fast Freight Espana" (Spain), to enterprise Nuova LLL SRL and „Madrelingua SRL" (Italy), „Dpointgroup" (Spain).

Data on student mobility during each academic year were analyzed (see Appendix 2.7.1. *Cooperation and internationalization*).

In academic year 2013/2014, 3 students spent a semester at partner institutions as participants of the Erasmus+ program: ISC Paris Business School (France), University of Aveiro (Portugal), Ostfold University College (Norway), in addition was developed 2 master's theses in cooperation with partner universities in Norway. In turn, 1 student of the study program participated in the traineeship mobility program at „Fast Freight Espana" (Spain).

In academic year 2014/2015, 2 students spent a semester at partner institutions as participants of the Erasmus+ program: Tallinn University of Technology (Estonia) and Obuda University (Hungary). In turn, 2 students of the study program participated in the traineeship mobility program at Nuova LLL SRL (Italy) and Madrelingua SRL (Italy).

In academic year 2015/2016, 1 student spent a semester at partner institution as participant of the Erasmus+ program: University of Padova (Ungārija).

In academic year 2016./2017. studiju gadā 1 student of the study program

participated in the traineeship mobility program at “Dpountgroup” (Spain).

In academic year 2017/2018, 1 student spent a semester at partner institution as participant of the Erasmus+ program: University of Split (Croatia). In turn, 2 international students of the study program spent a semester at partner institution as participant of the Erasmus+ program: Kuhne Logistics University (Czech Republic) and Vrije University Brussel (Belgium).

Partner universities hosting the students of the study program “Organization and Management of International Economic Relations” provided positive feedback on the level of students’ theoretical and practical knowledge.

Recognition of study courses acquired during the mobility takes place in accordance with RTU Vice-Rector for Studies Nr. 01000-1.1 / 240 of the Order "On Amending the Erasmus + Student Mobility Arrangement" and the Order of 4 April 2016 No. 02000-1.1 / 29 Order “On Recognition of Study Courses Acquired in Other Higher Education Institutions and Study Programs”. Recognition of the ERASMUS + period is made by the study program director upon the student's return from ERASMUS + studies, based on the student's transcript of records and a pre-signed application for course recognition.

For a successful recognition of study courses, the student carefully selects the most appropriate partner institution for the study program and field before embarking on ERASMUS + studies. Student courses fully or partially coincide with the selected partner universities offered courses by the application form shall be coordinated with Erasmus + unit coordinator and approved by the program director.

During the recognition process, grades obtained during ERASMUS + studies are not converted into a 10-point grading scale, but successfully completed partner institution courses are written "recognized", thus recognizing the partner institution's credit points. If the course recognition application foresees changes in the study program and the student has been successful during ERASMUS + studies, an order of the Vice Rector for Studies regarding individual changes in the study program is prepared. Once an order has been issued for the individual amendment of the study program, the courses of the partner higher education institution shall be entered in the RTU Register of Study Courses and the student's individual plan shall be amended to include the courses acquired abroad. Modifications to the study program shall only be made at the expense of the Part B courses by replacing the courses with those of the partner higher education institution.

In the overall assessment, it can be considered that the number of outgoing Erasmus+ students is high, and the level of students’ knowledge corresponds to the level of knowledge, skills and competences required at the study courses implemented by other internationally recognized higher education institutions.

### III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The Master's study program "Organization and Management of International Economic Relations" is implemented on a fee basis and there also are state budget funded seats. Data on funding are given in the table below (see table 3.1.).

Table 3.1.

**Funding of the Study Program**

Academic Year	Subsidy (EUR)	Tuition fee for the program (EUR)	Total funding for the program (EUR)	Cost per student (EUR)
2013/2014	32 731,00	50 418,00	83 149,00	2 800,00
2014/2015	34 113,32	32 893,58	67 007,90	2 799,53
2015/2016	43 210,56	36 196,34	79 406,90	2 799,53
2016/2017	42 033,27	25 700,98	67 734,25	2 799,53
2017/2018	34 892,51	36 540,91	71 433,42	2925,99
2018./2019.	36 354,70	27 436,32	63 791,02	3 062,87

In the academic year 2013/2014 the highest percentage of financing were from tuition fees, but in 2018/2019 the situation has changed and the majority of study place are state granted. This can be explained by the fact that in the current economic situation in Latvia not all students who wish to study can pay for their studies, but use the opportunity to study for state funds. As the number of budget places in the program is virtually unchanged over six years, the cost per student increases as the enrollment fee decreases.

State budget grant funds for the academic year 2013/2014 accounted 40%, but tuition fees 60%.

In the academic year 2014/2015, 51% of the study program was financed by tuition fees, but the state budget grant was 49% of the total funding of the study program.

From the academic year 2016/2017, the total funding for the program is decreasing, which must be taken into account as a threat to the quality of the program content. However, already in the academic year 2017/2018 financial resources are increasing again, so there is no single factor that can influence the amount of financial resources. An increase in the number of state budget funded seats would be

welcomed, which would also encourage growth in the number of students at the program.

The following facilities are used in the implementation of the program:

- auditoriums (both for lectures and practical classes);
- computer rooms;
- resource room;
- RTU Scientific Library.

The rest of the infrastructure available to RTU and the Faculty of Engineering Economics and Management (classrooms, learning resource offices, sports complexes, canteens, wardrobes, etc.) is used for the implementation of the program. The program is also serviced by RTU Accounting Department, Student Records Management Department, Archive etc.

The classrooms are upgraded, new resource classrooms and study laboratories are created, office equipment is upgraded, study literature is purchased, computers are purchased and upgraded for the study process and other activities are carried out. Currently, at the Faculty there are 256 computers, of which 161 are located in 8 computer rooms used by the students. In addition, lecture rooms and administration offices are equipped with computers.

Students have access to **databases subscribed by RTU Library:**

- **ProQuest Ebook Central** contains approximately 51,700 full-text ebooks published by the world's leading scientific publishing houses – Elsevier, Wiley, Springer, Oxford Press, Emerald etc. in various fields of science, as well as in economics, finance, and business.
- **ScienceDirect** – a database of scientific, technical and medical articles by Elsevier. Over 2,500 full-text journals (Freedom Collection) have been made available since 2002 and 354 full-text books in various fields of science, as well as in economics, finance, business, management and accounting.
- **Academic Search Complete EBSCOhost** – 8,800 full-text periodicals in various fields of science, as well as in economics, finance, business, management and accounting.
- **Applied Science & Technology Source EBSCOhost** – 1,200 full-text periodicals (applied mathematics, computer science, artificial intelligence, robotics, mechanical engineering, aeronautics, power engineering, chemical technology, and textile industry).
- **Business Source Ultimate EBSCOhost** – 5,100 full-text periodicals (management information systems, management, production management, marketing, economics, finance, accounting, international trade, and insurance).
- **EBSCOhost eBook Academic Collection** contains approximately 180,000 full-text ebooks in English, published by the world's leading scientific publishing houses in various fields of science, including economics, finance, business, management, and accounting.

- **Wiley Online Library** has more than 1,360 full-text journals (Full Collection) since 1997 in various fields of science, as well as in economics, finance, business, management, and accounting.
- **SpringerLink** has approximately 13,100 books published by Springer in the period of 2014–2018 in various fields of science, as well as in business and economics.
- **The International Monetary Fund (IMF) eLibrary** offers access to important global economic information – IMF resources, periodicals, books, statistical databases and studies on macroeconomics, financial crises, globalization, trade, international relations, politics, etc.
- **LETA fields:** Construction and Real Estate, Macroeconomics, Industry, Trade and Services, Transport and Transportation, Tourism, Hotel Business.
- **Latvian Standards Database.**

Search results related to international economic relations for the past 5 years in the Primo and Exlibris databases are shown in Appendix 2.6.1. *Basic information about library provision to students.*

RTU Scientific Library has a wide range of books, etc. corresponding to the study program “Organization and Management of International Economic Relations”. It includes a variety of information resources:

1. Andersen, Torben Juul Global strategic responsiveness: exploiting frontline information in the adaptive multinational enterprise / Torben Juul Andersen and Carina Antonia Hallin. Abingdon, Oxon; New York, NY: Routledge, 2017. xiii, 159 lpp.: ilustrācijas. ISBN 9781138204621 (iesiets).
2. Rīgas Tehniskā universitāte. Starptautisko ekonomisko sakaru, transporta un loģistikas aktuālās problēmas 2016: apvienotais 57. RTU studentu zinātniskās un tehniskās konferences Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas katedras sekcijas un SESTELK studentu zinātniskās konferences tēžu krājums gada 18.-19. aprīlis un 23.-24. novembris / [redkolēģija: Velga Ozoliņa, Remigijs Počs; atbildīgā par izdevumu Nadežda Škindere; literārā redaktore Ieva Zarāne; vāka dizainere Jekaterina Lukina]; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Rīga: RTU izdevniecība, 2017. 100 lpp.: shēma; 24 cm. ISBN 9789934109133(brošēts).
3. Rugman, Alan M. International business / Alan M. Rugman, Simon Collinson, University of Birmingham, Rajneesh Narula, Henley Business School, the University of Reading. 7th edition. Harlow, United Kingdom; New York: Pearson Education, 2017. xxxvi, 755 lpp.: ilustrācijas. ISBN 9781292064390 (brošēts).
4. O'Brien, Robert, Global political economy: evolution and dynamics / Robert O'Brien & Marc Williams. 5th edition, revised and updated. New York, NY: Palgrave Macmillan, 2016. xv, 360 lpp.; ilustrācijas. ISBN 9781137523129 (brošēts).
5. Rīgas Tehniskā universitāte. Starptautisko ekonomisko sakaru, transporta un

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6. Krugman, Paul R., International economics: theory & policy / Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz. 10th, global ed. Harlow: Pearson, ©2015. 785 lpp.: il., tab., kart.; 26 cm. The Pearson series in economics ISBN 9781292019550 (global ed.)
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52. Richards, Gwynne Warehouse management: a complete guide to improving efficiency and minimizing costs in the modern warehouse / Gwynne Richards. 2nd edition. London: Kogan Page Limited, 2015. xvi, 427 lpp.: il.; 23 cm. ISBN 9780749469344
53. Rīgas Tehniskā universitāte. Starptautisko ekonomisko sakaru, transporta un loģistikas aktuālās problēmas 2015: 56. RTU studentu zinātniskās un tehniskās konferences Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas katedras sekcijas tēžu krājums: 2015. gada 25.-28. aprīlis / redkolēģija: Velga Ozoliņa, Remigijs Počs; vāka dizainere Jekaterina Lukina; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Rīga: RTU izdevniecība, 2015. 129 lpp.; 25 cm. ISBN 9789934107160 (brošēts).
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57. Kundler, Jörg Uzturēšanas un tehniskā servisa modeļa izstrādes metodoloģija gaisa satiksmes vadības pakalpojumu sniedzējam : promocijas darba kopsavilkums izvirzīts inženierzinātņu doktora (Dr.sc.ing.) zinātniskā grāda iegūšanai, zinātņu nozare "Transports un satiksme", apakšnozare "Telemātika un loģistika" = The methodology of maintenance and technical service model development for air traffic control service providers: summary of the promotion work to obtain the scientific degree of doctor of science in engineering (Dr.sc.ing.), scientific area "Transport and communications", scientific subarea

- "Telematics and Logistics" / Jörg Kundler; zinātniskais vadītājs Igors Kabaškins; Transporta un sakaru institūts. Rīga: Transporta un sakaru institūts, 2014. 122 lpp.: il., tab.; 21 cm.
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  59. Manners-Bell, John Logistics and supply chains in emerging markets / John Manners-Bell, Thomas Cullen and Cathy Roberson.. London: Kogan Page, 2014. xi, 252 lpp.: il.; 24 cm. ISBN 9780749472405 (paperback)
  60. Martin, James W. Lean Six Sigma for supply chain management: a 10-step solution process / James W. Martin. 2nd edition. New York: McGraw Hill Education, ©2014. xxix, 395 lpp.: il.; 24 cm. ISBN 9780071793056
  61. Oliveira, Alexandre Executing the supply chain : modeling best-in-class processes and performance indicators / Alexandre Oliveira, Anne Gimeno ; with contribution of Martin Christopher. Upper Saddle River, NJ: Pearson Education, ©2014. xvi, 206 lpp. il. ; 24 cm. ISBN 9780133764383
  62. Patļins, Pāvels Uzņēmējdarbības loģistika : uzdevumu krājums / Pāvels Patļins; [recenzents: Remigijs Počs; atbildīgā par izdevumu Anita Vēciņa; literārā redaktore Silvija Minkevica; vāka dizains Jekaterina Ribajeva]; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas katedra. Rīga: RTU Izdevniecība, 2014. 80 lpp.: il., kartes, diagr., tab.; 25 cm. ISBN 9789934105937 (brošēts).
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  64. Rīgas Tehniskā universitāte. Starptautisko ekonomisko sakaru, transporta un loģistikas aktuālās problēmas 2013 : studentu zinātniskās konferences tēžu krājums: 2013. gada 27.-28. novembris / [redkolēģija: Astra Auziņa-Emsiņa, Remigijs Počs]; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas katedra. Rīga : RTU izdevniecība, 2014. 79 lpp.: il.; 21 cm. ISBN 9789934105173
  65. Sanders, Nada R. Big data driven supply chain management: a framework for implementing analytics and turning information into intelligence / Nada R. Sanders, Ph.D. Upper Saddle River, New Jersey: Pearson, [2014] vii, 262 lpp.: ilustrācijas; 24 cm. ISBN 9780133801286 (hbk.)
  66. Soško, Oksana, Modelēšanā sakņota daudzvešelonu piegādes ķēžu taktiskā vadīšana: promocijas darbs / Oksana Soško; zinātniskie vadītāji: J. Merkurjevs,



- H. Van Landeghem; Rīgas Tehniskā universitāte. Datorzinātnes un informācijas tehnoloģijas fakultāte. Informācijas tehnoloģijas institūts. Rīga: Rīgas Tehniskā universitāte, 2014. 145 lp.: il., diagr., tab., sh.; 31 cm.
67. Soško, Oksana, Modelling-based multi echelon supply chain tactical management: summary of doctoral thesis / Oksana Soško; scientific supervisors: J. Merkurjevs, H. Van Landeghem; Riga Technical university. Faculty of Computer Science and Information Technology. Institute of Information Technology. Rīga: RTU Izdevniecība, 2014. 38 lpp.: il., diagr., tab.; 21 cm. ISBN 9789934105883
  68. Soško, Oksana, Modelēšanā sakņota daudzēšelonu piegādes ķēžu taktiskā vadīšana: promocijas darba kopsavilkums / Oksana Soško; zinātniskie vadītāji: J. Merkurjevs, H. Van Landeghem Rīgas Tehniskā universitāte. Datorzinātnes un informācijas tehnoloģijas fakultāte. Informācijas tehnoloģijas institūts. Rīga: RTU Izdevniecība, 2014. 38 lpp.: il., diagr., tab.; 21 cm. ISBN 9789934105876
  69. Stukaļina, Jūlija, Professional English for students of logistics / Yulia Stukalina; [reviewers: Larisa Kuzmenko, Antra Roskoša; glossary translated into Estonian Tõnis Hintsov]. Rīga: Transport and telecommunication institute, 2014. 187 lpp.: tab.; 21 cm. ISBN 9789984818672
  70. Крайнюков, Александр Викторович, Automobiļu ceļu konstrukciju parametru rekonstrukcija izmantojot radiolokācijas zemvirsmas zondēšanas rezultātus : promocijas darba kopsavilkums izvirzīts inženierzinātņu doktora (Dr.sc.ing.) zinātniskā grāda iegūšanai: zinātnes nozare "Transports un satiksme", apakšnozare "Telemātika un loģistika" = Reconstruction of the roadway coverage parameters by radar subsurface probing: summary of the promotion work to obtain the scientific degree of doctor of science in engineering (Dr.sc.ing.): scientific area "Transport and communications", scientific subarea "Telematics and logistics" = Восстановление параметров дорожных конструкций автомобильных дорог по данным радиолокационного подповерхностного зондирования автореферат диссертационной работы на соискание степени доктора инженерных наук (Dr.sc.ing.): научная область "Транспорт и сообщение", научная подобласть "Телематика и логистика" / Aleksandrs Kraiņukovs; zinātniskais vadītājs Valērijs Kutevs; Transporta un sakaru institūts. Rīga: [Transporta un sakaru institūts], 2014. 141 lpp.: diagr., tab.; 21 cm. ISBN 9789984818610
  71. Спиридовская, Надежда Netradicionālie regresijas modeļi transporta plānošanā un modelēšanā: promocijas darba kopsavilkums izvirzīts inženierzinātņu doktora (Dr.sc.ing.) zinātniskā grāda iegūšanai: zinātņu nozare "Transports un satiksme", apakšnozare "Telemātika un loģistika" = Nontraditional regression models in transport planning and modeling: summary of the promotion work to obtain the scientific degree of doctor of science in engineering (Dr.sc.ing.): scientific area "Transport and communications", scientific subarea "Telematics and logistics" / Nadežda Spiridovska; zinātniskā vadītāja Irina Jackiva; konsultants Aleksandrs Andronovs; [oficiālie recenzenti:

Jurijs Paramonovs, Jurijs Merkurjevs, Ilia B. Frenkel]; Transporta un sakaru institūts. Rīga: Transporta un sakaru institūts, 2014. 78 lpp.: tab.; 21 cm. ISBN 9789984818696 (brošēts).

72. Юнусов, Сергей Мухамедович, Gāzes turbīnas dzinēja plūsmas daļas diagnosticēšanas modeļu un metožu uzlabošana lidaparāta spēkiekārtas monitoringa sistēmās: promocijas darba kopsavilkums, izvirzīts [!] inženierzinātņu doktora (Dr.sc.ing.) zinātniskā grāda iegūšanai, zinātņu nozare "Transport [!] un satiksme", apakšnozare "Telemātika un loģistika" = Improvement of models and methods for diagnosis of gas path of gas turbine engine in aircraft power plant monitoring system: summary of the promotion work to obtain the scientific degree doctor of science in engineering (Dr.sc.ing.) scientific area "Transport and Communications", scientific subarea "Telematics and logistics" = Совершенствование моделей и методов диагностирования проточной части газотурбинного двигателя в системе мониторинга силовой установки летательного аппарата: автореферат диссертационной работы на соискание ученой степени доктора инженерных наук, научная область "Транспорт и сообщение", подобласть "Телематика и логистика" / Sergey Yunusov; zinātniskie vadītāji: Jevgeņijs Kopitovs, Vladimirs Labendiks; zinātniskais konsultants Šarifs Guseinovs; Transporta un sakaru institūts. Rīga: Transporta un sakaru institūts, 2014. 180 lpp.: il., tab.; 21 cm. ISBN 9789984818627
73. Bowersox, Donald J. Supply chain logistics management / Donald J. Bowersox, David J. Closs, M. Bixby Cooper, John C. Bowersox. 4th edition. New York : McGraw-Hill, 2013. xii, 481 lpp.: ilustrācijas; 26 cm ISBN 9780078024054 (iesiets).
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75. Girvica, Olga Optimization methods and models creation for logistic company successful development : doctoral thesis / Olga Girvica ; scientific supervisor Alexander Andronov; Riga Technical University. Faculty of Transport and Mechanical Engineering. Institute of Aeronautics. Riga: Riga Technical University, 2013. 137 lpp.: il., tab.; 26 cm.
76. Girvica, Olga Optimization methods and models creation for logistic company successful development : doctoral thesis summary / Olga Girvica; scientific supervisor Alexander Andronov; Riga Technical University. Faculty of Transport and Mechanical Engineering. Institute of Aeronautics. Riga: RTU Press, 2013. 43 lpp.: il., tab.; 21 cm. ISBN 789934104404
77. Girvica, Olga Optimizācijas modeļu un metožu izstrādāšana loģistikas kompānijas veiksmīgai darbībai : promocijas darba kopsavilkums / Olga Girvica ; zinātniskais vadītājs A. Andronovs; Rīgas Tehniskā universitāte. Transporta un mašīnzinības fakultāte. Aeronautikas institūts. Rīga: RTU izdevniecība, 2013. 42 lpp.: il., tab.; 22 cm. ISBN 9789934104398

78. Jurševiča, Jeļena, Lēmumatbalsta metodoloģija pamatojoties uz pilsētas transporta sistēmas mikroskopisko modeļu repozitorijiem: promocijas darba kopsavilkums izvirzīts inženierzinātņu doktora (Dr. sc.ing.) zinātniskā grāda iegūšanai: zinātņu nozare "Transports un satiksme", apakšnozare "Telemātika un loģistika" = Methodology of decision-making support based on urban transportation system microscopic models repositories: summary of the promotion work to obtain the scientific degree of doctor of science engineering (Dr. sc.ing.), scientific area "Transport and communications", scientific subarea "Telematics and logistics" = Методология поддержки принятия решения на основе репозитория микроскопических моделей городской транспортной системы: автореферат диссертационной работы на соискание ученой степени доктора инженерных наук (Dr. sc.ing.), научная область "Транспорт и сообщение", подобласть "Телематика и логистика" / Jeļena Jurševiča; zinātniskā vadītāja Irina Jackiva; Transporta sakaru institūts. Rīga: Transporta un sakaru institūts, 2013. 124 lpp.: il., diagr., tab.; 21 cm. ISBN 9789984818603
79. Kurbel, Karl, Enterprise resource planning and supply chain management: functions, business processes and software for manufacturing companies / Karl E. Kurbel. Heidelberg: Springer, [2013] xii, 359 lpp.: ilustrācijas; 26 cm. Progress in IS. ISBN 9783642315725 (iesiets).
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81. Lieksnis, Raimonds Asset pricing problems in the Baltic financial markets: summary of doctoral dissertation: field: management science, sub-field: business administration / Raimonds Lieksnis; scientific advisor: Remigijs Počs; Riga Technical University. Faculty of Engineering Economics and Management. International Business and Customs Institute. Department of International Business, Transport Economics and Logistics. Riga: RTU Press, 2013. 66 lpp.: il., tab; 21 cm. ISBN 9789934104176
82. Lieksnis, Raimonds Finanšu aktīvu novērtēšanas problēmas Baltijas valstu fondu tirgos: promocijas darba kopsavilkums: nozare: vadībzinātne, apakšnozare: uzņēmējdarbības vadīšana / Raimonds Lieksnis; zinātniskais vadītājs Remigijs Počs; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas Rīga : RTU izdevniecība, 2013. 69, [1] lpp.: il., tab.; 21 cm. ISBN 9789934104169
83. Praude, Valērijs, Loģistika: (teorija un prakse) / Valērijs Praude. 2. pārstrādātais un papildinātais izdevums. [Rīga]: Burtene, c2013. 560 lpp.: il., tab.; 25 cm. ISBN 9789984833095

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85. Rīgas Tehniskā universitāte. Starptautisko ekonomisko sakaru, transporta un loģistikas aktuālās problēmas 2013: studentu zinātniskās konferences tēžu krājums: 2013. gada 8.-11. maijs. [redkolēģija: Astra Auziņa-Emsiņa, Remigijs Počs]; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Starptautisko ekonomisko sakaru un muitas institūts. Starptautisko ekonomisko sakaru, transporta ekonomikas un loģistikas katedra. Rīga: RTU izdevniecība, 2013. 129 lpp.; 21 cm. ISBN 9789934104381
86. Sales, Michael The air logistics handbook: air freight and the global supply chain / Michael Sales. New York: Routledge, 2013. xxiii, 216 lpp: il. ISBN 9780415643641 (hbk.)
87. Savrasovs, Mihails, Jaunas pieejas izstrāde transporta plūsmu modelēšanai un analīzei mezoskopiskā līmenī: promocijas darba kopsavilkums izvirzīts inženierzinātņu doktora zinātniskā grāda iegūšanai : zinātņu nozare "Transports un satiksme", apakšnozare "Telemātika un loģistika" = Development of new approach for simulation and analysis of traffic flows on mesoscopic level: summary of the promotion work to obtain the scientific degree of doctor of science in engineering (Dr. sc.ing.), scientific area "Transport", scientific subarea "Telematics and logistics" = Разработка нового подхода для моделирования и анализа транспортных потоков на мезоскопическом уровне: автореферат диссертационной работы на соискание учёной степени доктора инженерных наук (Dr. sc.ing.), научная область "Транспорт", подобласть "Телематика и логистика" / Mihails Savrasovs; zinātniskais vadītājs Jurijs Tolujevs ; Transporta un sakaru institūts. Rīga : Transporta un sakaru institūts, 2013. 123 lpp.: il., tab.; 21 cm. ISBN 9789984818566
88. Supply chain logistics management / Donald J. Bowersox ... [et al.]. 4th ed., international ed. New York: McGraw-Hill, c2013. xii, 484 lpp.: il.; 26 cm. ISBN 9780071326216
89. Supply chain safety management: security and robustness in logistics / Michael Essig ... [et al.] (eds.). Heidelberg ;New York : Springer, c2013. ix, 372 [1] lpp.: il.; 24 cm. Lecture notes in logistics, . ISBN 9783642320200
90. Vilkelis, Aurimas, Modelling of the automotive distribution network by merging supply channels of manufacturers: summary of doctoral dissertation : technological sciences, transport engineering (03T) = Automobilių skirstymo tinklo modeliavimas jungiant gamintojų2013 tiekimo kanalus / Aurimas Vilkelis; Vilnius Gediminas Technical University. Vilnius: Technika, 2013. 24 lpp.: il.
91. Гаджинский, А. М. Логистика: [учебник для вузов по направлению подготовки "Экономика", "Менеджмент", "Товароведение", "Торговое дело", "Сервис", (квалификация "бакалавр")]/ А.М. Гаджинский. 21-е изд. Москва : Дашков и К<sup>о</sup>, 2013. 418 лpp.: il. Серия "Учебные издания для бакалавров".

According to the professional standard qualification requirements, future International Relations managers should be familiar with the tax and customs field, students of the study program have the opportunity to improve their knowledge in the Customs Control Laboratory established by the Customs and Taxes Department of Faculty of Engineering Economics and Management, International Business and Customs Institute, with the support of the Customs Board of the State Revenue Service. The laboratory is equipped with a variety of measuring devices and technical tools used by customs officers in their daily work to inspect vehicles and persons, such as density and radiation flow meters, metal detectors, endoscopes, narcotics, etc., to check that vehicles are not smuggled goods. Special cages for hollow boards, car doors, seats, fuel tanks and tires have also been developed to train students' ability to find smuggled goods. Thus, the laboratory simulates frequently used hiding places for the transportation of unauthorized goods. The laboratory is also equipped with techniques for showing various customs control training films and videos.

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

**4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Academic staff members as well as highly qualified specialists in the field participate in the implementation of the program. The results of the student survey indicate that they highly appreciate the involvement of industry experts. During the past three years, representatives of associations and employees of international companies have been attracted; thus, students gain practical knowledge and experience related to organization and management of international relations. Information about the academic staff is presented in Appendix 4.1.1. *Basic information about academic staff involved to implementation o study program* and in appendix *RIGS0 list of academic staff*.

The table below (see table 4.1.) shows information on changes in the academic staff involved in the implementation of the study program.

Table 4.1.

### Information about the academic staff involved in the program

Year	Professor	Associate professor	Assistant professor	Lecturer	Industry specialist
2013/2014	4	4	5	1	5
2014/2015	4	4	7	1	9
2015/2016	4	5	3	2	4
2016/2017	4	4	5	2	3
2017/2018	3	5	4	0	7
2018/2019	3	6	5	0	8

It can be seen from the table that majority of academic staff has doctoral degree, every year more and more highly qualified specialists and experts are involved, thus bringing the content of the program as close as possible to the specifics and topicalities of the field.

As students' questionnaires on study program quality improvement opportunities regularly mentioned that they would like to involve more professionals and experts in the teaching of the courses, the table shows that according to the students' recommendations the number of specialists each year increases. This ensures that industry professionals are aware of, and committed to, current issues in the industry (see appendix 4.1.2. *Academic staff involved in implementation of study program*).

#### **4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

To ensure the quality of the study content, the academic staff members involved in the implementation of the program, regularly improve their professional and academic knowledge by participating in methodological seminars, conferences (national and international), projects and by conducting scientific and research work (see Appendix 4.2.1. *List of academic staff publications for the reporting period*). Information about the academic staff members involved in the implementation of the study program and their correspondence to the delivered courses is presented in Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program*.

**The academic staff involved** in the program use international cooperation and

mobility programs. For example, in the academic year 2013/2014, Assistant Professor Olga Bogdanova went to the Brno University of Technology (Czech Republic) to give lectures and classes on "How to benefit from the EU internal market" and "Specific features of doing business in the global local markets".

In the academic year 2014/2015, Assistant Professor Olga Bogdanova went to Tallinn University of Technology (Estonia) to give lectures and workshops on the topic: How to Benefit from the EU Internal Market, The EU Business Promotion Institutions and Programs.

In the academic year 2015/2016, Assistant Professor Olga Bogdanova gave a lecture course "How to benefit from the EU internal market" at Tallinn Technical University (Estonia), as well as guest lectures at the Brno Technical University during the Erasmus program exchange visit on "How to benefit from the EU internal" market "and" Specific features of doing business in the local markets of the world. "

In the academic year 2016/2017, five lecturers and administrative staff of the study program went to the following partner universities for exchange of experience in the Erasmus + program: Tallinn University of Technology (Estonia), Kühne Logistics University (Germany), Polytechnic University of Tirana (Albania), Frederick University (Cyprus).

In the academic year 2017/2018, Director of the study program, Associate Professor Inguna Jurgelane-Kaldava traveled to Kühne Logistics University (Germany), Heilbronn University and IDRAC Business School (France) in the framework of the Erasmus + program for further cooperation on international mobility of students and academic staff. promoting cooperation in science and the development of distance learning projects. International Projects Manager at SESTEL Chair, visited Heilbronn University (Germany) to exchange experience and promote inter-university mobility. Assistant professor Olga Bogdanova went to Tallinn University of Technology (Estonia) and Brno University of Technology (Czech Republic) to deliver lectures and classes on 3 different topics: the EU internal market "and" The EU business encouragement institutions and programs ". Associate Professor Velga Ozoliņa gave lectures at the Universidade Fernando Pessoa (Portugal) and gained new knowledge at Tampere University of Applied Science (Finland).

In the academic year 2018/2019, Director of the study program, Associate Professor Ingūna Jurgelāne-Kaldava went to the Hochschule für Technik und Wirtschaft Dresden (Germany) and the Lahti University of Applied Sciences (Finland) to promote further scientific cooperation and the development of international projects. Assistant professor Olga Bogdanova went to Euroakademy (Estonia) to conduct a lecture course: How to Benefit from the EU Internal Market.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in**

**Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

The academic staff regularly engages in scientific research, publishing articles in various collections of papers, and giving presentations at local and international conferences. A list of publications and conferences for each lecturer can be found in Appendix 4.2.2. *Basic information about the compliance of the academic staff involved in the implementation of the study program.* In addition, academics are involved in both science and other local and international projects.

The results of research and projects are integrated into study courses and presented to students. For example, asoc.prof. V.Skribans in course “Management of International Transportation”, asoc.prof. I.Jurgelāne-Kaldava in the course “Politics and International Economic Relations”, “Statistics” and “International Business Planning”, asoc.prof. V.Ozoliņa, in course “Methodology of Statistic Data Processing and Analysis”, assist.prof. A.Auziņa-Emsiņa in course “Development of World Economy”, etc.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**



In order to ensure the interconnection of the study course content, the program study courses are audited each year, as well as various seminars where the lecturers involved in the implementation of the program introduce the course topics, teaching methods and discuss improvements to ensure higher content quality and current trends.

Analyzing the ratio of students to the number of lecturers involved in the study program at the time of submitting the self-evaluation report, on average program has 3 elected lecturers per student and 6 students per one industry specialist.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5. Statistics about students of study program.pdf	5.pielikums: Statistikas dati par studējošajiem studiju programmā.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6. Study program compliance to state education standard.pdf	6.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7. Compliance of the study program to the profession standard.pdf	7.pielikums: Studiju programmas atbilstība profesijas standartam.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8. Mapping of study courses of the study program Organization and Management of International Economic Relations.pdf	8.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana studiju kursu kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9. Study program "Organization and Management of International Economic Relations" plan.pdf	9.pielikums: Studiju programmas Starptautisko ekonomisko sakaru organizēšana un vadīšana plāns.pdf
Descriptions of the study courses/ modules	Appendix 10. Description of the study courses modules International Relations Master.zip	10.pielikums: Studiju kursu moduļu apraksti Starptautiskie sakari maģistrs.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma professional Master Organization and Management of International Economic Relations.pdf	Diploms profesionālais maģistrs_Starptautisko ekonomisko sakaru organizēšana un vadīšana.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Confirmation about possibility to continue studies.pdf	Apliecinājums par studiju turpināšanas iespējām.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study agreement sample.pdf	Studiju līguma paraugs.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

# Entrepreneurship and Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Entrepreneurship and Management</i>
Education classification code	<i>43345</i>
Type of the study programme	<i>Academic bachelor study programme</i>
Name of the study programme director	<i>Jana</i>
Surname of the study programme director	<i>Eriņa</i>
E-mail of the study programme director	<i>Jana.Erina@rtu.lv</i>
Title of the study programme director	<i>Asoc. profesore, Dr. oec.</i>
Phone of the study programme director	<i>67089855</i>
Goal of the study programme	<i>The aim of the study program is to provide students with the theoretical knowledge of social sciences and to enable students to develop their research skills based on theoretical approaches in entrepreneurship and management, achieving particular learning outcomes of the study programme in accordance with the knowledge, skills and competences of level 6 of the European Qualifications Framework specified in the Classification of Latvian Education, as well as to qualify students to pursue Master's level studies.</i>
Tasks of the study programme	<i>1. To provide competitive education in entrepreneurship and management that corresponds to Bachelor's level studies and meets international standards;</i> <i>2. To provide comprehensive theoretical and practical knowledge, developing students' skills in accordance with the requirements set by the labor market;</i> <i>3. To develop awareness of the complex nature of socio-economic processes and to teach students to use the knowledge acquired in solving various socio-economic problems;</i> <i>4. To develop students' analytical skills and to ensure they acquire scientific research skills and develop the ability to formulate problems and find solutions;</i> <i>5. To promote students' interest in advancing their knowledge, improving their professional skills and continuing their education at master study programs.</i>

Results of the study programme	1. To demonstrate the knowledge of fundamental theories necessary to ensure the efficient management of an enterprise; 2. To develop understanding of the basic performance indicators of an enterprise; 3. To develop understanding of the impact of enterprise internal environment and external factors on business performance; 4. To put forward economically substantiated and socially responsible proposals to improve the performance of an enterprise; 5. To identify stakeholders involved in the operation of an enterprise, to determine their interests, to set certain goals and objectives, to plan and implement activities in order to achieve the goals; 6. To independently use modern information technologies to resolve the issues related to entrepreneurship and management; 7. To independently acquire, select and analyse the information, to apply scientific research methods; 8. To demonstrate the knowledge of management terminology in the Latvian and foreign languages; 9. To engage in argumentative discussions on business issues in the Latvian and foreign languages with specialists and other parties involved in entrepreneurship and management.
Final examination upon the completion of the study programme	<i>Bachelor Thesis</i>

## Study programme forms

### Full time studies - 3 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	3
Duration in month	0
Language	<i>latvian</i>
Amount (CP)	120
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Management</i>
Qualification to be obtained (in english)	-

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### Full time studies - 3 years - english

Study type and form	<i>Full time studies</i>
Duration in full years	3
Duration in month	0
Language	<i>english</i>
Amount (CP)	120

Admission requirements (in English)	<i>General or vocational secondary education. English language proficiency level test.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Management</i>
Qualification to be obtained (in english)	-

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Part time extramural studies - 4 years - latvian**

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>120</i>
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Management</i>
Qualification to be obtained (in english)	-

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### **Part time studies - 4 years - latvian**

Study type and form	<i>Part time studies</i>
Duration in full years	<i>4</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>120</i>
Admission requirements (in English)	<i>General or vocational secondary education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Bachelor Degree of Social Science in Management</i>
Qualification to be obtained (in english)	-

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

No significant changes have been made in the study program since the issue of the previous study field accreditation sheet. Except that in June 2019 the volume of Part A was changed from 79 CP to 80 CP, the volume of Part B from 27 CP to 26 CP, as well as the existing study courses were improved and new included according to the legislation in force at that time recommendations from students, graduates and employers. More detailed information on the study courses included in the program can be found in section 2.1.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Conducting analysis of the statistical data on the student number dynamics at the academic Bachelor study program "Entrepreneurship and Management" (taking into account full-time studies in Latvian and English and part-time studies in Latvian) and comparing student figures at the beginning of academic year 2018/ 2019 and the beginning of 2013/2014, it may be observed that the number of students has grown by almost 44%. In recent years, there is a pronounced tendency that the interest in both full-time studies in Latvian and full-time studies in English at this study program is growing. It should be also noted that enrolment in full-time studies in English is performed two times a year: summer and winter enrolment rounds. According to the statistical data, at the beginning of autumn semester of 2019, the total number of students enrolled in the program for full-time intramural studies in Latvian and English was 239 students. However, the total number is expected to increase along with the winter enrolment round, therefore, at the time of accreditation, the number of full-time intramural students will definitely exceed 250 students. Student interest in the part-time studies in Latvian at the academic Bachelor study program "Entrepreneurship and Management" is also growing. Comparing the data for the beginning of academic year 2018/2019 and 2013/2014 it may be observed that student number at the program grew by 185%. Considering the information provided above, it may be concluded that the demand for this program is constantly growing.

Overall statistical indicators for the academic Bachelor study program "Entrepreneurship and Management" (taking into account full-time studies in Latvian and English and part-time studies in Latvian) are as follows: at the beginning of academic year 2013/2014, 147 students studied at the program, at the beginning of academic year 2014/2015 – 200 students, at the beginning of academic year 2015/2016 – 211 students, at the beginning of academic year 2016/2017 – 215 students, at the beginning of academic year 2017/2018 – 203 students, at the beginning of

academic year 2018/2019 – 211 students.

Student drop-out rates are an important factor in student number dynamics. Student drop-out indicators demonstrate that exmatriculation from RTU for poor academic performance is the main reason for drop out from full-time intramural and extramural studies in Latvian. Exmatriculation for poor academic performance is mainly observed upon commencing both full-time and part-time studies in Latvian in the 1<sup>st</sup> study year. This indicates that the students did not have sufficient level of the background knowledge, or could not have autonomously organized their studies at the university. At the same time, in case of extramural studies in Latvian, there is a tendency for exmatriculation from RTU for poor academic performance in the 4<sup>th</sup> study year, which is the evidence of the fact that students cannot timely develop their Bachelor Theses, as it requires considerable time resources. The main reasons for drop out in case of full-time intramural studies in English include exmatriculation from RTU for poor academic performance and by student own volition. Also in case of studies in English, insufficient level of the background knowledge or inability to autonomously organize their studies at the university are among the main reasons for student drop out. This tendency is most pronounced during the 1<sup>st</sup> year of studies. Exmatriculation due to failure to commence studies upon matriculation is another reason for drop out, it is mainly connected with the student failure to receive residence permits. Systematic lecture attendance to ensure the effective residence permit is valid is essential for foreign students, as non-attending students are exmatriculated; this tendency is mainly observed during the 2<sup>nd</sup> year of studies. A lot fewer students are exmatriculated on their own volition. The main reasons for this kind of drop out include health issues, family circumstances, as well as work load, as relatively many students combine work with studies. There are also cases when students do not recommence studies after a sabbatical leave. In turn, foreign students are sometimes exmatriculated from RTU for failure to meet contractual obligations of the learning agreement and academic breaches, which in most cases expose as failure to pay tuition fees in time or unethical conduct in the study process. In order to reduce drop out, students are invited into face-to-face meetings with the Head of the Program, searching for a sound solution to the existing situation through negotiations.

Graduate number dynamics is most closely connected with student numbers and changes therein. In the reporting period, a small reduction has been observed comparing academic year 2013/2014 with 2018/2019 (the number of graduates from full-time intramural studies in Latvian in academic year 2018/2019 was by 3 fewer compared to 2013/2014, whereas this tendency is not observed in case of part-time studies; at the same time, the number of foreign graduates continues growing, in academic year 2018/2019 the number of graduates grew by 16 people).

The study program is financed from both state budget funds and tuition fees paid by natural persons. Starting from academic year 2013/2014, 40 state budget funded seats were allocated for the program, in academic year 2014/2015, there were 35 state budget funded seats at the program.

Considering and conducting a more detailed analysis of student number breakdown by source of financing in the period from academic year 2013/2014 to 2018/2019, it may be concluded that at the full-time intramural studies all state budget funded seats are filled, however, the number of tuition fee paying students is variable, for example, in academic year 2017/2018 there were 14 fee paying students (private financing), whereas in 2018/2019 – only 7 tuition fee paying students. Tuition fee is determined for part-time studies and foreign students every year in accordance with the current market situation, fee-based studies are covered from the private sources.

Analyzing national affiliation of full-time foreign students studying at the program, it may be observed that:

1. In academic year 2013/2014, 49.49% students were from Uzbekistan, 9.9% – from

Azerbaijan, 7.07% – from India, Nepal and Nigeria, 5.05% – from Tajikistan, 3.03% – from Sri Lanka, 1.01% – from the USA, Brazil, Kameron, Kazakhstan, Russia, Lebanon, the UK, Mexico, Syria, Thailand, Turkey and Ukraine;

2. In academic year 2014/2015, 56.21% students were from Uzbekistan, 10.06% – from Azerbaijan, 8.88% – from India, 4.73% – from Kazakhstan and Sri Lanka, 2.96% – from Tajikistan, 2.37% – from Russia and Nigeria, 1.78% – from Turkey, 1.18% – from Brazil and Syria, 0.59% – from Belarus, Kameron, China, Nepal, Pakistan and Thailand;
3. In academic year 2015/2016, 49.02% students were from Uzbekistan, 11.27% – from India, 10.78% – from Azerbaijan, 7.35% – from Sri Lanka, 3.92% – from Kazakhstan, 2.94% – from Russia, 2.45% – from Nepal, 1.96% – from Nigeria and Turkey, 1.47% – from Tajikistan, 0.98% – from Belarus, China, Italy and Pakistan, 0.49% – from Brazil, Egypt, Kameron, Syria and Thailand;
4. In academic year 2016/2017, 43.78% students were from Uzbekistan, 16.92% – from India, 9.95% – from Azerbaijan, 5.47% – from Kazakhstan and Nepal, 4.98% – from Sri Lanka, 2.49% – from Russia, 1.49% – from Egypt, Italy, Nigeria and Tajikistan, 1.00% – from China and Turkey, 0.50% – from the USA, Belarus, Brazil, Pakistan, Thailand and Turkmenistan,
5. In academic year 2017/2018, 35.57% students were from Uzbekistan, 27.84% – from India, 7.73 – from Azerbaijan, 5.67 – from Sri Lanka, 4.64% – from Nepal, 4.12% – from Kazakhstan, 2.58% – from Russia, 2.06% – from China, 1.55% – from Italy and Tajikistan, 1.03% – from Egypt, Pakistan, Turkey and Turkmenistan, 0.52% – from the USA, Australia, Japan, Moldova and Thailand;
6. In academic year 2018/2019, 35.14% students were from India, 27.03% – from Uzbekistan, 7.57% – from Azerbaijan, 8.65% – from Sri Lanka, 3.78% – from China, 3.24% – from Kazakhstan, 2.70% – from Nepal, 1.62% – from Italy, Russia and Turkey, 1.08% – from Egypt and Turkmenistan, 0.54% – from the USA, Australia, Georgia, Japan, Morocco, Moldova, Nigeria, Pakistan and Thailand.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

Academic Bachelor study program “Entrepreneurship and Management” corresponds to Level 6 of EQF and LQF, thus it is envisioned for the entrants with the general secondary education or 4-year vocational education. The study program has been developed to promote analytical abilities of the students and facilitate acquisition of research skills, ability to state problems and find ways for their solution, as well as to develop intellectual abilities of the students in the relevant and publicly beneficial areas, to create understanding about complexities of socioeconomic processes.

The aim of the academic Bachelor study program “Entrepreneurship and Management” is to provide students with the theoretical knowledge of social sciences and to enable students to develop their research skills based on theoretical approaches in entrepreneurship and management, achieving particular learning outcomes of the study programme in accordance with the knowledge, skills and competences of Level 6 of the European Qualifications Framework specified in the Classification of Latvian Education, as well as to qualify students to pursue Master’s level studies.

**The tasks** of the study program:



1. To provide competitive education in entrepreneurship and management that corresponds to Bachelor's level studies and meets international standards;
2. To provide comprehensive theoretical and practical knowledge, developing students' skills in accordance with the requirements set by the labor market;
1. To develop awareness of the complex nature of socio-economic processes and to teach students to use the knowledge acquired in solving various socio-economic problems;
2. To develop students' analytical skills and to ensure they acquire scientific research skills and develop the ability to formulate problems and find solutions;
3. To promote students' interest in advancing their knowledge, improving their professional skills and continuing their education at Master study programs.

### **Learning outcomes of the study program to be achieved:**

Upon completion of the study program, graduates are able:

1. To demonstrate the knowledge of fundamental theories necessary to ensure the efficient management of an enterprise;
2. To develop understanding of the basic performance indicators of an enterprise;
3. To develop understanding of the impact of enterprise internal environment and external factors on business performance;
4. To put forward economically substantiated and socially responsible proposals to improve the performance of an enterprise;
5. To identify stakeholders involved in the operation of an enterprise, to determine their interests, to set certain goals and objectives, to plan and implement activities in order to achieve the goals;
6. To independently use modern information technologies to resolve the issues related to entrepreneurship and management;
7. To independently acquire, select and analyse the information, to apply scientific research methods;
8. To demonstrate the knowledge of management terminology in the Latvian and foreign languages;
9. To engage in argumentative discussions on business issues in the Latvian and foreign languages with specialists and other parties involved in entrepreneurship and management.

Upon completion of the study program, the student should develop a Bachelor Paper (10 credit points). The Bachelor Paper is analytical economic research with some elements of scientific work, which demonstrates the graduate's ability to use literature and other sources of information, as well as their ability to summarise and analyse the obtained results. The Bachelor Paper is reviewed and then presented at an open meeting of the State Examination Committee appointed by the Dean.

Graduates have wide opportunities to work at various state and municipality institutions, banks, and private enterprises. They can also establish and manage their own enterprises.

Matriculation of the applicants to full-time undergraduate study programs (day department) is carried out on the competitive basis based on the result of the centralised secondary school examinations. In case of the academic Bachelor study program "Entrepreneurship and Management", two best results out of the following study subjects – mathematics, physics, the foreign language (English, German or French), and the Latvian language – are taken into account.

## **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of**

## Studies and Implementation Thereof)

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

Considering the compliance of the academic Bachelor study program "Entrepreneurship and Management" with the Cabinet Regulations No 240 "Requirements of the State Academic Education Standard" approved on 13 May 2014, it has been concluded that it fully meets the requirements of the standard: the main aim of the Bachelor study program is to ensure development of the body of knowledge, competences and skills in compliance with the requirements set in the Latvian Qualifications Framework in Level 6 with regard to knowledge, competences and skills. The curriculum of the Bachelor study program provides for achievement of a wide range of scientifically substantiated learning outcomes. Comparison of the program with the requirements of the standard is presented in Appendix 6.

Bachelor Degree of Social Science in Management can be obtained within three years at full-time intramural studies and within four years at part-time extramural studies. The volume of the Bachelor study program is 120 credit points.

The core of the Bachelor studies is formed by compulsory study courses amounting to 80 CP. At the same time, the volume of elective study courses that a student may select themselves is determined by RTU Senate resolutions for each study cycle. Within Bachelor studies, elective study courses amount to 31 CP, including compulsory elective courses – 27 CP and free elective courses – 4 CP. Upon completion of the study program students develop and publicly present a Bachelor Thesis. In compliance with the State Academic Education Standard, the volume of the Bachelor Thesis is 10 CP, 10 weeks are envisioned for its development.

The compulsory and compulsory elective parts of the study program comprise the courses on the basic guidelines, principles, structure and methodology of the respective field or sub-field (not less than 25 credit points required by the standards, 55 credit points within the program), the courses on the basic guidelines of the research field or sub-field, including such study courses as:

1. Mathematics – 5CP;
2. Business Intelligence Technologies I – 3CP;
3. Business Intelligence Technologies II – 4CP;
4. Business Intelligence Technologies III – 2CP;
5. Statistics – 3CP;
6. Economics – 4CP;
7. Introduction to the Study Field – 1CP;8
8. Scientific Research in Entrepreneurship – 6CP;9
9. Introduction to Business Economics – 2CP
10. Fundamentals of Finances – 4CP;
11. Business and Labour Law – 4CP;

12. Business Planning – 4CP;
13. Start-up Establishment and Development – 4CP;
14. Management Information Systems – 3 CP;
15. Sociology of Management – 2CP;
16. Managerial Psychology – 2CP;
17. Sociology of Personalities and Small Groups – 2CP.

The following study courses (not less than 10 credit points – in the standard, in the program – 16 credit points) dwell on the topical issues related to development history of scientific field or sub-field:

1. Organization Management – 6CP;
2. Marketing – 4CP;
3. Taxes and Duties – 3CP;
4. Risk Management in Business – 3CP.

The following study courses (not less than 15 credit points as stipulated in the standard, in the program – 52 credit points) cover the topics related to the description of the scientific field or sub-field and cross-sectoral issues:

1. Project Management – 4CP;
2. Quantitative Methods for Economics – 3CP;
3. International Economic Relations – 3CP;
4. Business Communication – 4CP;
5. Financial Accounting – 5CP;
6. Managerial Accounting – 4CP;
7. Business English – 4CP;
8. Business German – 4CP;
9. New Product Design and Development Methodology – 4CP;
10. Business and Social Dialogue – 4CP;
11. Strategic Management – 3CP;
12. Personnel Management – 3CP;
13. Coaching and Team Management – 3CP;
14. Investment – 4CP.

The Bachelor study program also meets the requirements imposed on the study courses by the Environmental Protection Act and the Civil Protection:

1. Civil Defence – 1CP;
2. Work Environment and Ergonomics – 2CP;
3. Corporate Social Responsibility – 3CP.

The level of achievement of the learning outcomes is assessed on the 10-grade scale or with an assessment “tested/not tested”, only within the course “Introduction to the Study Field”.

In order to provide for the improvement of the study program quality, numerous measures are implemented:

1. Curriculum of the study program is constantly updated and improved to account for the recent tendencies in entrepreneurship, good practices of foreign universities, as well as the current situation in the labor market and its requirements;
2. To ensure that the program retains its current topicality and demand, more or less significant changes are systematically introduced, either not changing the existing study courses or supplementing the program with the new typical study courses;

3. Implementing the study courses, the members of academic staff take into consideration topical issues in Latvian and world entrepreneurship and consider them during the classes;
4. Students also take part in updating the study curriculum, at the end of each semester they fill in questionnaires in Ortus system providing their opinion on the curriculum of the study courses acquired during semester and their implementation quality;
5. Once per semester, the Head of the study program meets with group monitors in order to discuss topical study process related issues;
6. Regular lecture observation is performed, involving both department staff and students. Lecture observation results are discussed with the instructors with an aim to improve the study process and didactics.
7. Curriculum of the study courses is reviewed to bring it in compliance with recommendations of the employers and students expressed through regular polling;
8. The requirements towards the contents of the graduation papers have been updated;
9. A program work group has been established, which comprises the Head of the study program, experienced instructor, employer and two student representatives. The established work group and the meetings thereof allow taking into consideration the interests of all stakeholders, new topical issues in the labor market, student-focused education;
10. In academic year 2017/2018, study program mapping was performed that allowed identifying and comprehending its strengths and weaknesses.
11. Guest instructors from the industry are involved in the implementation of the study process within the study program in order to inform the students on the industry topicalities.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

Study program curriculum and implementation provide for sustainable development, which is in compliance with the four main purposes of higher education:

1. personal fulfilment;
2. democratic society;
3. solution of the tasks to promote development of science;
4. meeting the demands of the labor market.

The aim of improving the program is to provide education and training of educated, competitive professionals in the area of management, therefore, democracy and dialogue with the students, their active involvement in study process improvement are among the main principles practiced. The students get involved in the study process improvement either directly, i.e. expressing their suggestions to the instructor delivering a particular study course, to the head of the chair, or the head of the program, or with the help of student self-government, whose representatives participate as members in the work of FEEM Council, RTU Senate and RTU Senate Committees, as well as in the work of RTU Academic Assembly.

In academic year 2017/2018, study program mapping was performed. In the course of focus group interviews, it was discovered that it was necessary to introduce changes in the study courses to put

them in compliance with the general aims and learning outcomes defined for the study program. In academic year 2018/2019, changes were made in the compulsory study course within the study program, the mapping to account for the changes introduced was performed. As a result, it was concluded that after introduction of the changes in the study courses and their update, interconnection between expected learning outcomes of the study programs and the aims of the study courses was ensured. The results of study program mapping are presented in Appendix 8.

In order to ensure successful achievement of the study program outcomes, implementation of the study courses is planned observing definite sequence. Study program plans for full-time and part-time studies are given in Appendix 9.

Course outlines of the study courses within the study program are summarized in the joint RTU Study Course Register. Course outlines of the study courses within the academic Bachelor study program “Entrepreneurship and Management” in Latvian and English are presented in Appendix 10, which comprises course outlines of 22 compulsory study courses (A), 16 compulsory elective study courses (B) and final examination (E).

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Study program is implemented ensuring that the students could acquire both theoretical and practical knowledge in the course of their studies. Therefore, the academic staff use various teaching and learning methods in the study process, such as on campus lectures, seminars dedicated to the study courses, role plays and other business games, discussions, practical tasks and case studies based on the solution of the real problem issues of the enterprises, some members of academic staff have established their own YouTube channel for educational purposes, they use flipcharts, prototype design, and tests for interim progress check. In the course of studies, students have to solve tasks both individually and in groups, have to present the obtained results, which afterwards are jointly discussed and the emerging ambiguities are considered. Guest lecturers from the industry are also involved in study process implementation.

Greater emphasis in the study process is made on making students study and advance independently through individual and group research work, implementing student-centered education principles. Within the study courses, students have to work in groups taking on different roles, which requires development of the theoretical basis and its application for solution of practical tasks, thus promoting autonomy, responsibility and mutual respect among the students.

Within the study course “Business Intelligence Technologies”, students apply the acquired theoretical knowledge developing different IT solutions for the needs of concrete companies. Within the course “New Product Design and Development Methodology”, on the basis of the theoretical knowledge base students develop product prototypes and make economic calculations, present the obtained results to the committee, thus acquiring the practical skills necessary for an entrepreneur. At the same time, within the course “Introduction to the Study Field” students create teams with an aim to organize an event for the senior students. To reach this aim, throughout the entire course students receive support from a professional coach, this approach is implemented for the second

consecutive year. That gives students an opportunity to get acquainted, as well as to try on different organizational roles. At the study course "Scientific Research in Entrepreneurship" the interest in research is promoted and foundations of the skills necessary for the development of the graduation paper are elaborated, developing competences in working with research databases, summarizing and analyzing the data using various research methods and designs. Within the study courses related to finances, students on the basis of theoretical framework analyze financial indicators of the company using accounting software and make logical and substantiated conclusions. Within the course "Business and Labour Law" students based on the analysis of the theoretical aspects and legislation examine real cases, thus expanding their knowledge of the legal norms related to labor law. The study course "Business and Social Dialogue" is based on the analysis and assessment of real Latvian and European case studies. Within the course "Business Planning" students reflecting on the theoretical framework develop a business plan of their potential or existing business. Within the course "Start-up Establishment and Development" with regard of the theoretical aspects, students in groups establish their own enterprise taking into consideration all aspects. Upon completion of the course, students may present their ideas at different accelerators, thus trying to attract potential investors. At the course "Organization Management" students actively work on and analyze various actual case studies; in future within the course it is planned to maintain closer cooperation with the industry, attracting entrepreneurs and making students solve definite business situations. Within the course "Project Management" students on the basis of the theoretical framework have to work on the development of a concrete project, students also used to be involved in the performance of contracted research projects. Within the course "Coaching and Team Management" the emphasis is made on promoting student ability to cooperate with different people through team work, developing confidence to express their opinion and views, expose themselves, as well as to play business games. At the course "Business Communication" students take on various business-related roles complying with the norms of business etiquette, which is considered through discussions. At the same time, within the courses on Business English and German the main emphasis is made on making students acquire business terminology and terminology of the related fields, as well as communication skills in a foreign language.

Considering the analysis of the study courses and the methods used in their implementation, it may be concluded that the study courses are delivered using different traditional and interactive teaching methods, which in the most integral way comply with the learning outcomes that should be achieved within the study program.

The following main principles of assessment of education results are implemented within the study program:

1. the principle of summarizing positive assessments – positive assessments within each study course and within the program overall are summarized;
2. the principle of compulsory assessment – final examination should be obtained within each study course; final assessment is obligatory; credit points for study course acquisition are recorded if the assessment is not lower than 4 (almost satisfactory);
3. the principle of clarity and transparency of assessment – the requirements are listed in the course outline of every study course within the program (in the sections "Learning outcomes and assessment", "Structure and tasks of independent studies", "Study course outline" – volume in credit points, form of assessment), which are available to all stakeholders in ORTUS environment, with program administration or academic staff, they are announced at the beginning of each course, they also may be clarified if necessary in the course of studies;
4. the principle of variability of assessment forms – different assessment forms are used in evaluation of the learning outcomes: participation in the seminars and discussions, projects,

presentations, solution of the tasks and case studies, business games and role plays, essays, reports, tests;

5. the principle of relevance of assessment – the contents and volume of the materials included in assessment correspond to the curriculum set for the study course and the requirements towards the level of knowledge and skills defined by the standard.

Summative assessment system is used within the study courses to obtain students' final grades – the final grade is derived considering several assessment forms, as a result, the work of each student during the semester may influence their final grade. Assessment criteria for the study course are published in Ortus system beforehand, taking into consideration the relative weight of each assessment form. The final examination grade may not contribute more than 50% to the final grade. Academic staff may also take into account and assess lecture attendance.

Each instructor elaborating the study course determines the assessment system, however, they have to strictly observe RTU Senate resolution stipulating that exam grade may not constitute more than 50% of the final grade. Within some study courses students are offered an opportunity to gain additional points, performing tasks beyond the scope defined for the study course. During the semester, students have to submit the completed tasks in Ortus system, or have to submit hard copies to the responsible instructor observing task completion terms of each study course.

During the semester, students are offered an opportunity to maintain additional communication with instructors during tutorials, thus receiving answers to important questions, as well as the answers concerning exam procedures and issues that should be clarified at the tutorials before the exam. Communicating with the instructors, students also actively use remote communication facilities.

According to the approved RTU procedures, students may pass both interim tests and final exams in the written, oral, computerized or combined form. Computerized assessment is carried out in ORTUS environment. The grades received by students during the semester are summarized and evaluated by program administration and along with the student polling results concerning the study courses serve as the basis for study process improvement.

Analyzing the methods of study process implementation and learning outcome assessment within the academic Bachelor study program "Entrepreneurship and Management" it may be concluded that in the course of study process implementation student-centered education principles are taken into consideration in the teaching process:

1. diversity of students and their needs is considered, selecting suitable learning forms;
2. various program implementation forms are used, when possible;
3. study course instructors use diverse pedagogical methods to account for student abilities and needs;
4. instructors promote student aspiration and independence, simultaneously providing guidance and support;
5. mutual respect between the students and instructors is promoted;
6. there are established procedures for dealing with student complaints.

One of the most essential aspects of implementation of student-centered education is to promote student advancement in studies and future career, organization and quality of the student assessment system. Analyzing these aspects within the academic Bachelor study program "Entrepreneurship and Management", it may be concluded that:

1. Assessment methods and criteria for receiving definite grades are available in Ortus system, instructors also inform students about them at the beginning of each study course, and if necessary, repeatedly explain them during acquisition of the study course, therefore,

students are informed about assessment and examination methods and receive support in improving their skills in these areas;

2. Assessment is just and applicable to all students, thus providing students with the opportunity to demonstrate their degree of achievement of the expected learning outcomes. In the study process, students also receive feedback, which may be also used to give advice on the learning process;
3. It is envisaged in some assessment forms within selected study courses that assessment is performed by more than one examiner;
4. Instructors are accommodating towards students and in the course of studies take into consideration various contingent student circumstances;
5. Assessment is coherent, just, applicable to all students and is implemented in accordance with the approved procedures;
6. The procedures for considering student appeals are in place.

The study program is implemented in full-time, intramural form in Latvian and English, part-time, extramural form in Latvian, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant and form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by the Senate decision of 27 May 2017 "On the Regulations for the Assessment of Learning Outcomes", complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students' achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students. In the process of full-time intramural studies, the emphasis is on group work, discussions, seminars, while in part-time extramural studies there is more independent work of students. For example, in the study course Project Management part-time extramural, case studies is used to assess the causes of project management failures, classifying them according to certain features, group work is used to develop project stages according to the given project situation description, while full-time students implement the project in teams, starting with the idea and ending with the presentation of the project results. Also in such study courses as Marketing, Corporate Social Responsibility and other study courses, both group work and case studies, discussions and presentations are used, in part-time extramural studies emphasizing independent work for study course topics, face-to-face discussions and presenting independent work results.



**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

**2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Upon completion of the Bachelor level studies, students have to develop a Bachelor Thesis amounting to 10 credit points. Students select the themes of Bachelor Theses related to the field of entrepreneurship and management themselves. Students develop Bachelor Theses independently consulting with the scientific adviser during the last year of studies. The contents, volume, formatting and public presentation procedures are determined by the "Formatting and Style Guidelines for Development and Presentation of Graduate Papers for Obtaining Academic Bachelor Degree in Social Sciences" developed by the Faculty staff. The State Examination Committee comprising at least three people is established at the Faculty for public presentation of the Bachelor Theses. The Committee is chaired by the head of the organizational unit. The composition of the Committee uniting representatives of various chairs is approved by the Faculty Dean. Based on the results of the work of the Committee, the Faculty Council awards academic Bachelor degree in social sciences in the field of management.

Development and public presentation of the Bachelor Theses by the students allow evaluating to what extent the aim of the study program and the learning outcomes have been reached in the study process, as at this stage students have to demonstrate their ability to use all knowledge, competences and skills acquired and developed during studies. Developing their Bachelor Theses, students apply the acquired research skills in working with scientific databases. Bachelor Theses developed by the students demonstrate the learning outcomes defined for the study program, i.e. that students have acquired fundamental theories for implementation of managerial functions at an enterprise, understand basic indicators of company business performance, are aware of the impact of internal and external factors on company performance, are able to make economically substantiated and socially responsible proposals for company performance improvement, can identify the stakeholders involved in organization's work, define their interests, set concrete aims and tasks, plan and implement activities in order to reach the aims, are able to independently use modern information technologies for solution of entrepreneurship and management issues, are able to independently acquire, select and analyze information, use scientific research methods, know management terminology in the Latvian and foreign language, are able to argumentatively discuss business issues in the Latvian and foreign languages with the specialists and other parties involved in entrepreneurship and management.

Analyzing the themes of the presented Bachelor Theses, it was concluded that the themes are connected with the need to improve performance of concrete companies: "Pricing Policies at a Service Company", "Assessment of Trade Enterprise Performance Indicators", "Brand Development and Management at a Manufacturing Company", "Cost Reduction at a Manufacturing Company",

“Solution of the Challenges Related to Establishment of a Trade Enterprise”, “Risk Management at an Insurance Company”, etc.; issues related to the industry: “The Role of Advertising in the Service Industry”, “Small Enterprise Promotion Measures in Latvia”, etc.; marketing activities: “Launch of a New Service onto the Market”, etc., issues related to establishment of new enterprises: “Assessment of Development Opportunities of a New Enterprise in Latvia”, “Assessment of development Opportunities of a New IT Enterprise”, etc.

The themes of the Bachelor Theses demonstrate that the research conducted in these papers is topical for both concrete companies and industries, and labor market.

Assessments received for the graduation papers developed within the academic Bachelor study program “Entrepreneurship and Management” by grades:

1. 10 (with distinction) – in academic year 2015/2016 (2 students – full-time studies in Latvian);
2. 9 (excellent) – in academic year 2013/2014 (4 students – full-time studies in Latvian, 4 students – part-time studies in Latvian, 3 students – full-time studies in English); academic year 2014/2015 (7 students – full-time studies in Latvian, 5 – part-time studies in Latvian); academic year 2015/2016 (3 students – full-time studies in Latvian, 1 student – part-time studies in Latvian, 4 students – full-time studies in English); academic year 2016/2017 (2 students – full-time studies in Latvian, 4 students – part-time studies, 6 students – full-time studies in English); academic year 2017/2018 (4 students – full-time studies in Latvian, 5 students – part-time studies in Latvian, 5 – full-time studies in English); academic year 2018/2019 (2 students – full-time studies in Latvian, 5 – part-time studies in Latvian, 1 student – full-time studies in English);
3. 8 (very good) – in academic year 2013/2014 (8 students – full-time studies in Latvian, 5 students – part-time studies in Latvian, 1 student – full-time studies in English); academic year 2014/2015 (5 students – full-time studies in Latvian, 2 students – part-time studies in Latvian, 1 student – full-time studies in English); academic year 2015/2016 (7 students – full-time studies in Latvian, 4 students – part-time studies in Latvian, 6 students – full-time studies in English); academic year 2016/2017 (1 student – full-time studies in Latvian, 5 students – part-time studies, 6 students – full-time studies in English); academic year 2017/2018 (2 students – full-time studies in Latvian, 2 students – part-time studies in Latvian, 5 – full-time studies in English); academic year 2018/2019 (4 students – full-time studies in Latvian, 4 – part-time studies in Latvian, 5 students – full-time studies in English);
4. 7 (good) – in academic year 2013/2014 (1 student – full-time studies in Latvian, 6 students – part-time studies in Latvian, 1 students - full-time studies in English); academic year 2014/2015 (4 students – full-time studies in Latvian, 5 – part-time studies in Latvian); 2015/2016 (1 students – full-time studies in Latvian, 4 students – part-time studies in Latvian, 4 students – full-time studies in English); academic year 2016/2017 (1 students – part-time studies, 6 students – full-time studies in English); academic year 2017/2018 (5 students – full-time studies in Latvian, 3 students – part-time studies in Latvian, 10 – full-time studies in English); academic year 2018/2019 (3 students – full-time studies in Latvian, 5 – part-time studies in Latvian, 7 students – full-time studies in English);
5. 6 (almost good) – in academic year 2013/2014 (1 student – full-time studies in Latvian, 2 students – part-time studies in Latvian, 2 students – full-time studies in English); academic year 2014/2015 (1 student – full-time studies in Latvian, 2 – part-time studies in Latvian, 1 students – full-time studies in English); academic year 2015/2016 (4 students – full-time studies in Latvian, 1 student – part-time studies in Latvian, 1 student – full-time studies in English); academic year 2016/2017 (3 students – part-time studies, 9 students – full-time studies in English); academic year 2017/2018 (2 students – part-time studies in Latvian, 7 students – full-time studies in English); academic year 2018/2019 (2 students – part-time

- studies in Latvian, 9 students – full-time studies in English);
6. 5 (satisfactory) – in academic year 2014/2015 (1 student – full-time studies in Latvian, 3 students – part-time studies in Latvian, 3 students – full-time studies in English); academic year 2015/2016 (1 student – part-time studies in Latvian, 1 student – full-time studies in English); academic year 2016/2017 (2 students – part-time studies, 4 students – full-time studies in English); academic year 2017/2018 (1 student – full-time studies in Latvian, 5 students – full-time studies in English); academic year 2018/2019 (1 student – part-time studies in Latvian, 2 students – full-time studies in English);
  7. 4 (almost satisfactory) – in academic year 2013/2014 (1 student – part-time studies in Latvian, 1 student – full-time studies in English); academic year 2015/2016 (2 students – full-time studies in English); academic year 2016/2017 (5 students – full-time studies in English); academic year 2017/2018 (4 students – full-time studies in English); academic year 2018/2019 (2 students – full-time studies in Latvian).

Analyzing student grades received for the graduation papers in the reporting period, it may be concluded that the grades obtained within full-time intramural studies in Latvian are higher than the grades within full-time intramural studies in English. It may also be noticed that the majority of graduates receive grades 9 (excellent), 8 (very good) and 7 (good). However, there are only a few papers evaluated with grade 10 (with distinction). There were separate cases when grades 5 (satisfactory) and 4 (almost satisfactory) were obtained. At the same time, the number of students receiving assessment in the range from 4 (almost satisfactory) to 6 (almost good) among students studying full-time intramurally in English is growing.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

In order to ensure compliance with the democratic principles, once per semester students assess the work of the academic staff in the written form (in ORTUS environment), answering the questions in the poll. Questionnaires include questions on the availability of reference literature within each concrete study course, instructor assessment criteria, working culture and quality, provision of student rights during the classes, time allocated for independent studies, and academic discipline. In the final part of the questionnaire students may express their suggestions and recommendation for improvement of the study course and the quality of the instructor's work. The questionnaires are completed anonymously, so that the provided answers could not influence instructor's attitude towards a concrete student or student group to ensure achievement of the aim – to receive objective assessment from the students.

Student questionnaires are designed so that the answers provided by students helped in assessing the study course and the quality of the instructor's work, as well as gave students the opportunity to express their opinion and make suggestions for improvement of the instructor's work and the curriculum of the concrete study course.

FEEM student self-government also plays a major role in promoting cooperation among the students, academic staff and program administration; it actively participates in all processes mentioned above and conducts annual assessment of the academic staff, determining the best instructors every year. Every year in May, student self-government organizes an event "FEEM Pride", where the best instructors are honored.

The results of student polling in the reporting period have demonstrated that some issues are addressed within more than one study course, therefore to eliminate curriculum doubling the study courses and their curricula are regularly reviewed. Assessing the results of student polling on the whole it may be maintained that they are positive. The work of the majority of the academic staff was evaluated in the range 80 – 95%, only a few received evaluation lower than 80%. In this regard, this feedback was discussed with the respective instructors and the heads of the respective organizational units where these instructors belong. Thanks to the polling results, each instructor may assess their performance results and implement the relevant study quality improvement measures. Students highly evaluate the guest lecturers, industry representatives who share their knowledge during the classes, as well as during the training visits to the enterprises. Student polling results are analyzed by study program administration and academic staff to further promote implementation of study quality improvement measures. In addition, once a semester the head of the study program meets group monitors to discuss topical study process related issues and come to sound solutions.

Polling of the graduates also play a vital role in improvement of the study quality and updating of the study program. Therefore, graduate polling is carried out every year depending on the time of the graduation examination, either in January or in June. Polling results on the concrete program demonstrate its positive features and the areas for improvement:

1. In 2013, 40 graduates or 45% participated in the RTU Study Department organized survey;
2. In 2014, 18 graduates or 44% participated in the RTU Study Department organized survey;
3. In 2015, 21 graduates or 78% participated in the RTU Study Department organized survey;
4. In 2016, 14 graduates or 64% participated in the RTU Study Department organized survey;
5. In 2017, 3 graduates or 38% participated in the RTU Study Department organized survey;
6. In 2018, 9 graduates or 21% participated in the RTU Study Department organized survey;
7. In 2019, 28 graduates or 55% participated in the RTU Study Department organized survey.

Graduates made the following suggestions for improvement of the study program:

1. to analyze and review more real case studies, to model real and non-standard situations;
2. to review the curricula of the study courses, to update and improve them;
3. to involve more guest lecturers, who would diversity the study curriculum and promote understanding;
4. to exclude physics and chemistry from the study program.

The graduates also highly evaluated:

1. knowledgeable and considerate instructors;
2. cooperation with the records management office;
3. quality time spend acquiring new and valuable knowledge;
4. availability of information necessary in the study process.

Analyzing the graduate polling results, it may be seen that the opinions considerably differ, however, all opinions expressed by graduates are taken into consideration and analyzed. For example, in 2015, the changes in the program were introduced and such study courses as physics and chemistry were excluded; modern study course were included instead in compliance with the best practices of foreign universities. The curricula of the study courses are annually reviewed and updated to account for the newest tendencies in entrepreneurship. More and more guest lecturers and industry representatives are involved in the implementation of the study courses, who use different training methods, including the tasks based on the solution of real business issues.

In accordance with the data published by the Employers Confederation of Latvia at the portal

[www.prakse.lv](http://www.prakse.lv) on the results of the employer survey on the total of 566 study programs, the academic Bachelor study program “Entrepreneurship and Management” was recommended by 31 employer, so it was ranked in the top 50 of most recommended study programs. According to the survey results, the study program “Entrepreneurship and Management” was recommended by such employers as JSC Aldaris, Ltd Time Saving, Ltd Midis, state-owned Ltd Autotransporta direkcija, JSC Gjensidige bank, Ltd Sanitex, CIDO Grupa, MM Studija, Ltd Wooly World, etc

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

For more than 25 years *Erasmus* remains the most popular student exchange program in Europe. One of the aims of the program is to provide for European student mobility, promoting development of the universities in the context of the united Europe.

Riga Technical University has participated in the program since 1998. In 2014, a new EU support program in the area of education, training, youth and sport was launched – *Erasmus+*. *Erasmus+* unites numerous previous EU support programs within one program and in its new capacity operates also for the purposes of promoting student mobility and internship.

Participation in the mobility programs gives students the opportunity to expand their knowledge and competences, as well as to improve their communication skills in English interacting with the students of different nationalities. Analyzing mobility figures in the reporting period, it may be noticed that students at the program use this opportunity more and more actively, its popularity is growing specifically among the foreign students. The summary of mobility activities is presented below:

1. in a.y. 2013/2014, 4 students participated in ERASMUS program. These were the 2<sup>nd</sup> and 3<sup>rd</sup> year students, who studied at the RTU program. 3 students selected partner universities in Portugal, one – in Norway;
2. in a.y. 2014/2015, 1 student participated in ERASMUS program. It was a 3<sup>rd</sup> year student, who studied at the RTU program. The student selected a partner university in Spain;
3. in a.y. 2015/2016, 2 students participated in ERASMUS program. These were the 2<sup>nd</sup> year students, who studied at the RTU program. The students selected a partner university in Croatia;
4. in a.y. 2016./2017, 8 students participated in ERASMUS program, of which 7 were ICFSD students. These were the 2<sup>nd</sup> year students, who studied at the RTU program. The students selected partner universities in Portugal, Czech Republic, Spain, Austria, Germany, and Poland;
5. in a.y. 2017/2018, 21 students participated in ERASMUS program, of which 20 were ICFSD students. These were the 2<sup>nd</sup> year students, who studied at the RTU program. The students selected partner universities in Poland, Germany, Croatia, Portugal, Czech Republic;
6. in autumn semester of a.y. 2018/2019, 9 students participated in ERASMUS program, of which six 3<sup>rd</sup> year students of RIBU0 student group participated in student exchange program at the University of Dubrovnik (Croatia), University of Aveiro (Portugal), Universitat de Barcelona (Spain), Universidade Fernando Pessoa (Portugal), Pforzheim University (Germany). In the spring semester, two 2<sup>nd</sup> year students from RIBU0 student group participated in ERASMUS exchange program, who went to the Technical University of Cartagena (Spain). 25

ICFSD students participated in ERASMUS exchange program travelling to in such countries as Spain and Italy.

7. As it may be seen considering the summary about student mobility, mainly 2<sup>nd</sup> and 3<sup>rd</sup> year students participate in it. The activity of the full-time intramural students studying in Latvian is comparatively low. One of the possible reasons may be the fact than many students start working after completing their first year of studies, family circumstances is the second popular reason. The situation with foreign students is different, because they come to Latvia for studies only, thus they are better motivated to get involved in mobility.
8. A transparent and stable system for recognition of the study courses undertaken during mobility has been developed at RTU. Prior to mobility, students together with the Head of the study program individually coordinate the study courses to be undertaken at a foreign university, which will later be aligned with the study courses that are envisioned for the respective study semester at RTU. If any changes occur during student mobility, they are reconciled electronically. Upon return from mobility, the study courses acquired at the foreign university are recognized on condition that the student had acquired a positive assessment for them, attesting that with the documents issued by the foreign university.

The number of inbound mobility students is much higher than the outbound student flow. In this regard, two options are available for the students within the inbound mobility: to undertake certain study courses together with full time intramural students studying in Latvian or with full time intramural students studying in English. Inbound mobility opportunities within the full-time intramural studies in Latvian are limited, as within each study course the number of RTU students is taken into consideration, so only 2-3 study courses are offered each semester 2 (it is determined by each organizational unit individually talking not consideration their capacity, which afterwards is coordinated at the Faculty Council), in turn, inbound mobility students who come for full-time intramural studies in English may select absolutely all study courses that are scheduled for the respective semester. The study courses of the academic Bachelor study program “Entrepreneurship and Management” are also selected by the inbound mobility students of other faculties. Detailed information on the inbound mobility dynamics is provided in of the Self-Assessment Report of the Study Field.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

Academic staff and administration pay much attention to the application of effective forms of on campus instruction and improvement of the study program quality. The most modern information technologies are used at the classes: academic staff use electronic materials to present the lecture

contents visually (PowerPoint presentations, audiovisual materials, video materials, etc.). Such practical skills as problem solving and decision-making relevant for making economically sound decisions are developed in the study process using case studies, business games and other methods.

All lecture halls are equipped with multimedia equipment – computer connected to the Internet, speakers, overhead projector. In spring 2019, the Chair of Innovations and Entrepreneurship Management (CIEM) purchased Samsung flip chart, which allows making notes during the lectures, showing them on the screen, store and send them to the students, if necessary, it may also be used to create various video materials. At the same time, starting with autumn semester of 2019, larger lecture halls (120 seats) are equipped with HP Shareboard, which allows projecting the notes written on the whiteboard to the screen. Introduction of both these technologies allows providing a modern study process.

Considerable investment was made in the development of the IT provisions. Each faculty instructor has a work place equipped with a desktop computer or a laptop connected to the Internet.

RTU has established an interactive study portal [www.ortus.rtu.lv](http://www.ortus.rtu.lv), which is actively used by the faculty students and staff. Only authorized users may access the portal. It provides students with the opportunity to receive all topical information in the study process. They may see the current study courses (annotations, requirements for obtaining successful assessment, lecture schedule, lecture materials, the necessary literature and other materials), information on student academic performance and acquired study courses, current news, library information, access to study and research literature and databases, e-mail, etc. The portal provides opportunity to communicate with any instructor, and within the current study course – also with the group mates. The portal houses discussion forums, it is used in regular polling, etc.

Application of RTU electronic study environment ORTUS additionally provides the students with the information on a definite study course, assessment requirements and methodological resources. Students may monitor their academic performance indicators in ORTUS. Application of technology and increase of the speed of information exchange promotes efficiency of on campus classes and facilitates independent student work.

Students elaborate research skills systematically working with literature and Internet resources to successfully develop study papers of different kind and the Bachelor Thesis. In such a way, student scientific research work is promoted, as well as the ability to work with international research bases that are available at the RTU Library via electronic access in ORTUS environment.

RTU Scientific Library is the oldest university library in Latvia; its strategy and operational aims are closely related with RTU aims and tasks. The Library maintains subscription to more than 20 databases (see full list at: <http://www.rtu.lv/content/view/388/1337/lang,lv/>). RTU Scientific Library was one of the first in Latvia to introduce RFID technology, which helped it become a modern and up-to-date university library. The services of the Library have become more convenient for the students since the launch of a self-service book lending and return machine. Starting with autumn semester of 2018, the Reading Hall of the Library works on 24/7 basis; students have to register in RTU intranet ORTUS to gain access to the hall. The Library provides access to the newest periodicals, statistical materials, books, and conference proceedings. Every year, the Library allocates funds to the study program for the purchase of the current literature, which is also available to the students. In 2019, the books on the methodology of new product design and development, strategic management, marketing, risk management, market research, business planning, establishment and development of new enterprises, business communication, business intelligence technologies, corporate social responsivity, commerce and social dialog, project management, entrepreneurship research, patenting and intellectual capital, coaching and team

management were purchased. All books are available to students at 5 Paula Valdena Street.

Other infrastructure is also available to meet the needs of the students and academic staff – design laboratory, Bloomberg laboratories, copying facilities, student dormitories and student service center, RTU sport and recreation base, swimming pool, etc.

The students of the academic Bachelor study program “Entrepreneurship and Management” mainly use such databases as EBSCO, ScienceDirect, Scopus, Web of Sciences, firmas.lv in development of their research papers. Since 2018, students have access to Bloomberg database. All databases are available using e-resources, except Bloomberg – it is necessary to visit the Faculty laboratory during the office hours. Design Laboratory is mainly used within the study course “New Product Design and Development Methodology”.

The study program “Entrepreneurship and Management” is implemented on a fee and state budget basis. Data on funding are given in the table below:

	Subsidy, EUR	Tuition fee by local students, EUR	Tuition fee by foreign students, EUR	Total funding for the program, EUR	Cost of state budget funded seat, EUR
2013/2014	54552.00	89191.00	0.00	143743.00	1866.00
2014/2015	36180.79	60423.58	0.00	96604.37	1866.35
2015/2016	34382.60	69081.99	78003.68	181468.27	1866.35
2016/2017	27088.11	79900.04	333910.16	440898.31	1866.35
2017/2018	36728.95	82080.61	231030.26	349839.82	1950.66
2018/2019	38268.11	119609.05	292428.89	450306.05	2041.91

It may be concluded considering the information presented in the table that since academic year 2014/2015 budget subsidy cuts have been observed, at the same time, foreign student tuition fees have considerably grown, which increases the total study program funding.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**



#### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

30 members of academic staff are involved in the implementation of the academic Bachelor study program "Entrepreneurship and Management". Elected members of RTU academic staff and guest lecturers and research personnel participate in the implementation of the full-time and part-time studies within the study program. Considerable changes in the composition of the academic staff have occurred since the beginning of the reporting period, which to a great extent are determined by the changes in the study program. Since 2016, 2 professors, 7 associate professors, 8 assistant professors, 3 assistant professors at the professional programs, and 13 lecturers have worked at the program. There are also changes in the age structure, as the average age of the academic staff has considerably decreased. It is seen as a positive tendency, as renewal of the generations of academic staff occurs, this factor is also positively assessed by the students. Doctoral students are also actively involved in the study process, who promote introduction of new teaching methods and transfer of their research results to the study process.

Starting with 2019, the academic staff of the study program have the opportunity to participate in the traineeship program within the European Social Fund project Nr.8.2.2.0/18/A/017 "Advancement of Academic Staff of Riga Technical University in the Areas of Strategic Specialization". Within the project, academic staff may participate in the traineeship programs at the enterprises for 200 hours; this opportunity was used by 7 members of the academic staff.

Program instructors attend formal and informal professional advancement courses related to the study courses they deliver, which are organized both at the Faculty and University, and beyond. Information on the undertaken professional advancement courses is presented in instructor's CV.

#### **4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

Highly qualified specialists from several RTU faculties are involved in the implementation of the academic Bachelor study program "Entrepreneurship and Management". Guest lecturers and industry specialists are invited in order to increase study quality, giving students an opportunity to gain wider knowledge on the topicalities in entrepreneurship and management. The main aim of the program administration is to make sure that the students achieve the learning outcomes defined for the study courses and the study program, as well as to improve their quality.

28 elected lecturers are involved in the implementation of the study program, of which 19 lecturers have a doctoral degree, which makes up 68% of the lecturers. 7 lecturers are elected associate professors (25%), 2 are elected professors (7%) and 10 are elected docents (36%). 32% of the teaching staff of the study program have master degree. Thus, it can be concluded that the qualification of the teaching staff involved in the implementation of the academic bachelor's study

program complies with the requirements specified in the Law on Higher Education Institutions regarding academic study programs.

The following members of academic staff are involved in the implementation of the study program:

**Astra Auziņa-Emsiņa**, Dr.oec., Assistant Professor at RTU FEEM. Professional experience: 15 years of academic experience at a higher education institution. Research activity has also been carried out for more than 15 years, specializing in economic and sectoral analysis, foreign trade, competitiveness and productivity modeling, evaluation of interdisciplinary links, development of macroeconomic, macroeconometric and multisectoral models. Her research activity is attested by participation in scientific projects, research programs, and international scientific conferences, as well as by publishing scientific articles. She is also an expert of the Latvian Science Council. Astra Auziņa-Emsiņa is a member of various industry associations, such as the board member of the Latvian Association of Econometricians, member of International Input-Output Association, member of INFORUM modeling group, founder of Association of Latvian Young Scientists (ALYS) and its former member. Students acquire methods and solutions of economic and sectoral analysis and modeling, practically modeling macroeconomic processes, developing and forecasting scenarios. The latest and most up-to-date scientific studies and their results, topical events taking place in other countries are successfully integrated in the study process.

**Ieva Andersone**, Dr.oec., Assistant Professor. Professional experience: more than 15 years of academic work experience as scientific assistant, lecturer, assistant professor and researcher. Research component in work with students is ensured by participation in scientific conferences, as well as by developing publications. RTU teacher qualification courses and FEEM academic conference on the integration of teaching methods and scientific work into the study process have been attended. In addition, participation in the various workshops ensures knowledge about the latest trends in the sector, encourages the acquisition of new methods that enable students to learn the topicalities of the sector.

**Normunds Balabka**, Mg.oec., Mg.paed., Mg.jur., Assistant Professor at Professional Programs. The work at the higher education institution is closely related to the organizational and management work at Ulbroka Secondary School, Stopiņi Municipality, as well as fulfilment of the duties of the member of municipal council. The professional activities in Stopiņi municipality are thematically closely linked to the program of the study course "Territorial Economic Activity" and its curricula, which generally help ensure high-quality implementation of the study course.

**Jānis Bartušauskis**, Mg. oec., FEEM Lecturer. Professional experience: five years of pedagogical experience at RTU. The instructor has developed numerous study courses: Personal and Collective Means of Protection, Safety Requirements for Workplaces, Occupational Safety (Internal Safety and Civil Defence, Economics, Basics of Ergonomics and Occupational Safety, Work Environment and Ergonomics, and delivers the following courses: Occupational Safety, Basics of Occupational Safety, Work Environment and Ergonomics, Civil Defence. Nine Bachelor Papers have been supervised since the start of the pedagogical career. He published numerous research papers on the issues related to occupational safety and protection. He continuously advances his knowledge attending different courses and seminars related to the study courses she delivers, integrating it in the study process.

**Olga Bogdanova**, Dr.oec., Assistant Professor. Professional experience: more than 13 years of experience in state administration in the issues of the united EU market in such areas as power engineering and tax administration and more than 5 years of pedagogical experience at RTU. Expert, participant in the project Future Power Engineering Leadership, LCS expert. The instructor has developed numerous study courses: Organization and Management of International Economic Relations, International Business; published numerous research papers in proceedings to the local

and international conferences on the issues pertaining to international business relations and policies thereof. Experience gained in research and industry is integrated in the study process.

**Leonards Budņiks**, Mg.oec., FEEM Lecturer, ICF certified professional coach, Microsoft certified Excel expert, delivers study courses related to information technology and information systems management ((Business Data Analysis Technologies I, Business Data Analysis Technologies II, Business Data Analysis

Technologies

III,

Coaching and Team Management, Management Information Systems in full and part-time studies in Latvian and English). Develops data processing tools in MS Excel and Power Bi environment, continuously advances his professional knowledge attending local IT conferences and forums, participates in online courses and seminars, demonstrates deep interest in the impact of information technology on the society and economy. Research interests lie in information technology and systems management at small and medium-sized enterprises, open data concept, and research on social impact of IT development.

**Jana Eriņa**, Dr.oec., FEEM Associate Professor, ICF certified professional coach. Professional experience: academic experience – 9 year at the university and 8-year experience in finance. More than 9 years of experience in conducting scientific research, specializing in the fields of financial services, project management, risk management and calculation of vocational and tertiary education costs, which is attested by participation in research projects and research programs: within Interreg Europe project PGI00304, CLUSTERS3 “Leveraging Cluster Policies for Successful Implementation of RIS3”, Norwegian Grant Program 2009-2014, project “EU policies impact to the transformations of the higher education and research system in Norway and Latvia”, agreement number NFI/R/2014/006, Project “Advancement of the Institutional Research Capacity of Riga Technical University”, Erasmus+ project “Coaches of SMEs: 5POINTS Trainings”, research commissioned by administration of the Latvian Railways “Organization of the Survey on the Level of Satisfaction of Railway Passengers with the Quality of Railway Transportation” (leading researcher), She has participated in international scientific conferences, published numerous research papers. She is an LCS expert, as well as she has developed numerous study courses: Start-up Establishment and Development, Project Quality and Risk Management, Project Planning Methods, Project Management – in English, Scientific Research in Entrepreneurship, Business and Social Dialogue, Entrepreneurship, Business Planning, Introduction to the Study Field. The program sets out courses such as Introduction to the Study Field, Scientific Research in Business, Commercial and Social Dialogue, Creating and Developing start-ups, Entrepreneurship Risk Management. She continuously updates her knowledge attending various courses and seminars related to the delivered study courses. Experience gained in research and industry is integrated in the study process.

**Inga Eriņa**, Mg.oec., FEEM Lecturer, researcher. Professional experience: pedagogical experience at RTU since 2015. The instructor delivers the following courses: Business Planning, Project Management, Business Communication. In the course of her pedagogical career, she supervised Bachelor Theses in Latvian and English, published numerous research papers in proceedings to the local and international conferences on the issues pertaining to project management and entrepreneurship. She continuously advances her knowledge attending different courses and seminars related to the study courses she delivers, integrating it in the study process.

**Ilona Ezera**, Mg.oec., FEEM Assistant Professor at Professional Programs. Professional experience: more than 20 years of academic and research work experience at higher education institution. In addition to the Master Degree in Economics, qualification of engineer-economist in the specialization of mechanical engineering economics and organization has been obtained. Research

component in work with students is ensured by participation in international scientific conferences. She is the author of scientific articles and/or co-author of 3 textbooks. The achievement of learning outcomes is ensured by both acquired knowledge and practical professional experience.

**Elīna Gaile-Sarkane**, Dr.oec., Bc.sc.ing., FEEM Professor, Dean, Chair of RTU Senate. Professional experience: more than 20 years of academic and research work experience at higher education institution. The additionally acquired Bachelor degree in chemical industry provides an excellent basis for academic and research work in the fields of innovation, management and business. The scientific research focuses on interdisciplinary areas, covering management science, innovation management, technology transfer and different aspects of business. She has developed more than 150 scientific publications in management, economics and related fields. More than 35 of them have been published in internationally recognized conference proceedings in the indexed international databases (e.g., Thomson and Reuter, Scopus, EBSCO, etc.). She is the author and/or co-author of 4 textbooks, 3 monographs, 1 patent. Elīna Gaile-Sarkane is an expert of the Latvian Council of Science. She is an expert, researcher or project manager in more than 20 projects, promoting interdisciplinary, international cooperation with a significant contribution to the development of the Latvian education system.

**Rita Greitāne**, Dr.oec., FEEM Assistant Professor. Doctor degree provides an opportunity to conduct lectures and practical classes at academic study programs. Every year, professional advancement activities in the field of project management are undertaken, for example, on 31 October and 7 November 2018, a workshop "Project Management Workshops" organized by the KIC was attended and a certificate was obtained. In academic year 2018/19, a project "Survey on the Satisfaction of Railway Passengers with the Quality of Railway Services in Latvia in 2018" initiated by the State Railway Administration (contract No. 03000-3.1.2.-e/54.) was carried out with students, 50 students and 1134 respondents participated in the project, thus developing project management skills. By participating in scientific and academic conferences, the latest developments in the field of project management are effectively integrated by Rita Greitāne into the study process.

**Judīte Jakubāne**, Mg.oec., Assistant Professor at Professional Programs. Professional experience: more than 15 years of pedagogical experience. The instructor has developed numerous study courses: New Product Design and Development Methodology, Basic Business Course, Organization of Production and Services, Market Analysis and Marketing Strategy, New Product Design, Business Planning, Organization of Small and Medium-Size Business, Small Business Management, Economics and Planning of Small Business, Entrepreneurship, Organization of Management at Enterprise and delivers such courses as New Product Design, Innovative Product Development and Entrepreneurship, New Product Design and Development Methodology, Organization of Production and Services, Organization and Planning of Production. Management or Enterprise, Market Analysis and Marketing Strategy, Basic Business Course, Business Planning, Economics and Planning of Small Business, Entrepreneurship, Organization of Management at Enterprise. Since the start of her pedagogical career, Judīte Jakubāne supervised 45 Master Theses and 60 Bachelor Theses in Latvian, published numerous research papers in proceedings to the local and international conferences on the issues pertaining to organization and planning of small enterprises, innovation economics, innovations, and marketing. She also continuously advances her knowledge attending different courses and seminars related to the study courses she delivers, integrating it in the study process.

**Ingūna Jurgelāne-Kaldava**, Dr.oec., Associate Professor. Head of the Department of International Business, Transport Economics and Logistics. Professional experience: researcher and head of several international projects. Research component in work with students is ensured by participation in scientific conferences and development of publications in internationally recognized collections of scientific articles and journals, etc. For publications, different research methods are

used, including statistical, which allow presenting the results of research to students. She is a co-author of the textbook "Economic Statistics". In the implementation of the study course, a variety of teaching methods are used that allow students to learn the acquisition, compilation and analysis of statistical information in the field of a particular study program, using the latest information and data. In the program, the associate professor teach study course such as Statistics in full and part-time studies in Latvian and English.

**Māris Jurušs**, Dr.oec., Associate Professor. Professional experience: more than 5 years of experience delivering study courses at RTU, more than 20 years of industry experience. In parallel with his pedagogical activity, Māris Jurušs continues active work in the industry and is an LCS expert. He has developed numerous study courses: Basic Principles of Tax Administration, Taxation Analysis and Forecasting, Tax Planning and delivers such course as Taxes and Duties, Basic Principles of Tax Administration, Taxation Analysis and Forecasting, Tax Planning, Tax Planning (study project), Organization of Customs Activities and Control, Tax Risk Management, Taxes in Business, Corporate Tax Planning. Since the start of his pedagogical career, Māris Jurušs supervised 50 Master Theses and 50 Bachelor Theses in the Latvian and English languages, developed a methodological learning aid Customs and Tax Administration. Methodological Guidelines for Development of Qualification, Bachelor and Master Papers / Māris Jurušs - Riga: RTU Publishing House, 2016. - ISBN 978-9934-10-855-6. He also published numerous research papers in proceedings to the local and international conferences on the issues pertaining to taxes and duties. Experience gained in research and industry is integrated in the study process.

**Uldis Kamols**, Mg.oec., Dipl.oec., FEEM Assistant Professor at Professional Programs. Professional experience: internal auditor at the state administrative institution for 3 years, project manager in supervision of implementation of projects co-financed by the European Union for 3 years, senior manager at the Development Instruments Department of the Ministry of Regional Development and Local Government for more than 2 years. Previous professional experience and qualification help achieve learning outcomes, as well as supplement the theory with practical examples of projects co-financed by the EU and the socio-economic development of cities. The complete achievement of learning outcomes is supported by both acquired expertise in project management, project development and practical experience in evaluating and monitoring projects co-financed by the EU and identifying urban socio-economic challenges. The involvement in scientific research is related to the implementation of EU co-financed projects in Latvia and their role in the development of the country, as well as the socio-economic development of cities in Latvia. The results of the conducted research are used in the study process, students are involved in research to better understand study courses. In the program, the docent directs an Economic lecture course for full and part-time studies in Latvian.

**Natalja Lāce**, Dr.oec., Professor. Professional experience: more than 25 years of experience delivering study courses at RTU. She is the Head of the Chair of Finance of RTU FEEM (since 2012), and the head of the academic Master study program "Business Finance" (Management and Administration, Real Estate Management) (since 2006). In parallel with her pedagogical activity, Professor continues active work in the industry and is an expert at many organizations. She has developed numerous study courses: Managerial Accounting, Capital Budgeting, Investments and Financing, Strategic Financial Management, Corporate Finance. Since 2010, Natalja Lāce supervised 5 Doctoral Theses and was an adviser for numerous Doctoral Theses in the Latvian and English languages. She has developed learning and methodological learning aids: Personal Finance Management / Natalja Lāce - Riga: Riga Technical University, 2018 - ISBN 978-9934-22-143-9, Personal Finance Management / Natalja Lāce - Riga: RTU Publishing House, 2016. - ISBN 978-9934-10-918-8, Financial Literacy and its Assessment / Natalja Lāce - Riga: RTU Publishing House, 2013 - 101 p. - ISBN 978-9934-10-526-5, Personal Finance Management / Natalja Lāce -

Rīga: RTU Publishing House, 2013 - 97 p. - ISBN 978-9934-10-536-4, Financial Literacy of Entrepreneurs in Financial Stability Management / Natalja Lāce -Rīga: RTU Publishing House, 2013 - 107 p. - ISBN 978-9934-10-527-2. In parallel with her pedagogical activity, she conducts research work participating in the international projects. She published numerous research papers in proceedings to the local and international conferences and journals on the issues pertaining to finance and financial management. She also continuously advances her knowledge attending different courses and seminars related to the study courses she delivers. Experience gained in research and industry is integrated in the study process.

**Jeļena Malahova**, Dr.oec., Institute of Occupational Safety and Civil Defence Associate Professor. Professional experience: since 2011 Assistant Director of Studies at RTU FEEM IOSCD, as well as since 2014 RTU FEEM IOSCD Associate Professor. Research component in work with students is ensured by active participation in professional advancement seminars, scientific conferences and elaboration of publications. Active participation in different projects and scientific contracted work. Within the study process, students gain topical information in accordance with Cabinet Regulation No 716 "Minimum Requirements for the Content of the Mandatory Civil Protection Course and the Content of Civil Protection Training for Employees". In the program, the associate professor teach study courses such as Civil Protection in full and part-time studies in Latvian.

**Matvejevs Aleksandrs**, Dr. math., assistant professor for the Department of Engineering Mathematics. More than 30 years of experience in a higher education institution. Research components in working with students is ensured by active participation in professional advancement seminars, participation in scientific conferences and publication development. A number of math courses have been developed and teach. In the program, assistant professor teach study course Mathematic in full-time studies in English.

**Aleksandra Mihņenoka**, Mg.oec. FEEM Lecturer. The competences of Aleksandra Mihņenoka to conduct lectures and practical classes are regularly improved. As a result, within the teaching activities, the lecturer implements the principles of student-centred education, which is based on different teaching methods, both traditional and interactive. She is an active member of Association "Creative Ideas". She has participated in multiple international projects to promote entrepreneurship. She has industry-relevant scientific publications, also included in Scopus and ISI Web of Science databases. She has participated in scientific conferences. Research experience allows promoting students to get involved in research within the acquisition of the study course and elaboration of final project, by collecting and analyzing scientific articles on relevant topics and using different research methods. In May - July 2019, within the European Social Fund Project No 8.2.2.0/18/A/017 "Development of the Academic Personnel of Riga Technical University" lecturer underwent a traineeship at companies Jekabpils pakalpojumi Ltd. and Evatek Ltd. (total of 200 hours), which allowed gaining new experience, improving communication skills. Providing opportunity to give real examples to students ensures a more complete understanding of theoretical material by linking the theory to the actual practical examples, the real situation in the company and industry.

**Daina Ose**, Dr.jur., Lawyer, Barrister. Practical experience in dealing with economic disputes in court. When working with students the practical experience and knowledge gained in professional advancement courses are used. Publications in specialized journals and participation in problem discussions allow for an in-depth analysis and approbation of research results in studies. Studies of court and case law raise awareness of the aspects of the theoretical issues. This contributes to an in-depth understanding of the relation between theory and practice. Within the study course, students present a practical problem, exploring in more detail the theoretical regulation, doctrine and case law, and involve fellow students in the discussion of the problem.

**Iveta Ozoliņa-Ozola**, Dr.oec. FEEM Assistant Professor. Professional experience: academic staff member with more than 20 years of experience at higher education institution. She conducts study courses related to human resource management and economics. Iveta Ozoliņa-Ozola is an expert and researcher in the field of human resource management and economics at Safege Baltija Ltd. Her responsibilities include conducting assessment, research, program and other projects commissioned by public authorities. She is also an expert at the National Centre for Education, project "Implementation of National and International Activities for the Development of Student Talent". Regular professional advancement at professional and academic study courses, seminars and conferences, elaboration of scientific publications. Starting from this year, she has participated in the traineeship program within the European Social Fund Project No 8.2.2.0/18/A/017 "Development of the Academic Personnel of Riga Technical University". She has been a member of the Latvian Evaluation Society (LATES) for more than three years. The gained experience, knowledge, skills and competence are used in teaching activities, developing the curricula of study courses, selecting appropriate teaching and evaluation methods, and establishing cooperation with the students.

**Gunārs Ozolzīle**, Dr.sc.soc., Associate Professor. Professional experience: since 1989 teaching social sciences at RTU (Sociology, Politology and Political System of Latvia) and other higher education institutions in Latvia (University of Latvia, Latvian Academy of Sport Education, Police Academy of Latvia, College of Business Administration and Institute of Social Technologies); since 2005 Chairman of the State Examination Commission at Bachelor and Master study program "Sociology of Organizations and Public Administration" at the Faculty of Economics and Social Development of University of Life Sciences and Technologies. From 1991 till 2018, he was a researcher at market and public opinion research Company Baltic Studies Centre Ltd. Research link with students is also ensured by scientific research work in projects funded by the Latvian Council of Science, the Ministry of Defence and the EU, participation in conferences and development of scientific publications. Research activities have mainly been linked to research into the stability and efficiency of the Latvian political system, as well as the possibilities for reforming individual political institutes. Such research contributes to increasing the quality of the implemented study courses and to ensuring links with national political processes. Regular methodological work – development of teaching tools and other methodological materials – helps increase efficiency of study work.

**Aija Pola**, Mg.math., Lecturer. Professional experience: academic work for more than 20 years. Participation in scientific and methodological conferences and seminars, as well as elaboration of publications ensure constant professional advancement. Knowledge of mathematics, probability theory and other fields of mathematics is taught to students with an aim to apply the acquired knowledge in the field of economics. The lecturer in the program delivers the mathematics (in full and part-time studies in Latvian).

**Nadežda Semjonova**, Dr.oec., Assistant Professor. Research work, elaboration of scientific articles, participation in international conferences and various seminars ensure the conformity of the qualification in accordance with the requirements for the implementation of the study program and regulatory enactments. Involved in the Post-doctoral research support project, which enables co-operation with other European universities and the Association of the Latvian Manufacturers of Medicines. Expert on state and municipal government finances, the author of the scientific monograph "Government Debt: Evaluation of Financial Security and Optimal Policy Selection" (2017).

**Vladimirs Šatrevičs**, Dr.oec., Assistant Professor. Professional experience: more than 13 years of professional experience in the industry, pedagogical activity at RTU since 2015. In parallel with his pedagogical activity, he is actively involved in the industry and is an expert and member of EIC - SME Instrument Experts Team, European Union EASME, Quality Agency for Higher Education (AIKA),

LCS. He has developed numerous study courses: Labor Management, Labor Management (basic course), Ergonomics, Strategic Management, Management Theory (basic course) and delivers such courses as Organization of Production and Services, Business Management, Business Management (study project), Organization of Productivity Management, Working environment and ergonomics, Organisations Management, Strategic Management. Since the start of his pedagogical career, Vladimirs Šatrevičs supervised 17 Master Theses and 32 Bachelor Theses in Latvian and English, published a learning aid "Development Scenarios of Production Industry in the National Economy of Latvia" / Vladimirs Šatrevičs - Riga: RTU Press, 2010 - 67 p. - ISBN 978-9934-10-061-1. Vladimirs Šatrevičs also conducts scientific research participating in international projects, such as Project No NFI/R/2014/006 "EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia" - Nordplus, 5.2. "Economic transformation, smart growth, governance and legal framework for the state and society for sustainable development - a new approach to the creation of a sustainable learning community" support project. He also published numerous research papers in proceedings to the local and international conferences on the issues pertaining to organizational strategy, organizational development and other issues related to entrepreneurship and business management, and development perspectives. He also continuously advances his knowledge attending different courses and seminars related to the study courses he delivers. Experience gained in research and industry is integrated in the study process.

**Deniss Ščaulovs**, Dr.oec., Associate Professor, the head of the academic Bachelor study program Creative Industries (Management and Administration, Real Estate Management), Head of the Institute of Business Engineering and Management (IBEM). Professional experience: more than 5 years of experience delivering study courses at RTU. Deniss Ščaulovs is an LCS expert, has developed numerous study courses: E-Commerce, E-Commerce and E-Marketing, Modern Business Models and delivers such courses as Commerce, E-Commerce and E-Marketing, New Product Design and Development Methodology, Organization of Small and Medium-Size Business, Information Technologies for Personnel Management. Since the start of his pedagogical career, Deniss Ščaulovs supervised 20 Master Theses and 30 Bachelor Papers in Latvian and English, published a compendium of lectures within the course "E-Commerce" / Deniss Ščaulovs - N/A, 2016 - ISBN 978-9934-10-785-6. In parallel with his pedagogical activity, he is actively involved in research participating in the international projects, such as Interreg Europe PGI04868 "Fostering the role of public authorities as demanders of innovation through public procurement" (iBuy) - INTERREG EUROPE, LR MES "Study process and research of alternative models for measures promoting cooperation with the industry" - analysis of the foreign and Latvian experience and data summary within operational program "Growth and Employment" Activity 1.1.1.3. - MES-RTU, Strategic partnership project "Innovative strategic partnership for European higher education" (ISPEHE) No 2014-1-MK01-KA203-000275 - ERASMUS, Employment and skills forecasting policies: Social return on investment approach, No 2011-1-PT1-LEO05-08605 - Leonardo da Vinci, "Coaches of SMEs: 5POINTS Trainings" No 2014-1-TR01-KA202-013033 - ERASMUS. He published numerous research papers in proceedings to the local and international conferences on the issues pertaining to marketing. He also continuously advances his knowledge attending different courses and seminars related to the study courses he delivers. Experience gained in research and industry is integrated in the study process.

**Tatjana Smirnova**, Dr. philol., Associate Professor, Secretary of the Council of the Faculty of E-Learning Technologies and Humanities, member of the Board of RTU Institute of Applied Linguistics, coordinator of the annual RTU student scientific and technical conference in English, assistant to the head of the study program "Digital Humanities". Professional experience: more than 15 years of experience delivering study courses at RTU. Tatjana Smirnova has developed numerous study courses: Interlingual Information Transfer, Development of Listening Comprehension of Monologues, Dialogues and Professional Texts, Translation and Comprehension of Professional



Literature, English for Special Purposes, Theoretical Grammar and delivers such courses as Theoretical Grammar, the English Language, Functional Communication, Development of Listening Comprehension of Monologues, Dialogues and Professional Texts, Translation and Comprehension of Professional Literature, Practice in Consecutive Interpreting, General Translation Practice, Professional Translation Practice, English, Special Course in Transport, English for Special Purposes, Business English, Business German (Economics). In total, she supervised 5 Master Theses and 28 Bachelor Theses. She published numerous research papers in proceedings to the local and international conferences on the issues pertaining to linguistics. She also continuously advances her knowledge attending different courses and seminars related to the study courses she delivers. Experience gained in research and industry is integrated in the study process.

**Irina Voronova**, Dr.oec., Acting Professor. Professional experience: more than 25 years of experience delivering study courses at RTU. In parallel with her pedagogical activity, Acting Professor continues active work in the industry, she is an LSC expert, member of the board of the Association of Actuaries of Latvia (LaAA). Irina Voronova has developed numerous study courses: Risks in National Economy, Financial and Commercial Calculation Methods, Pricing Strategy, Scientific Research in Entrepreneurship, Risk Governance in Entrepreneurship, Financial Risk Management, Business Research Methods (study project), Enterprise Valuation. Since the start of her pedagogical career, Irina Voronova supervised 41 Master Theses and 39 Bachelor Theses in Latvian and English and 2 Doctoral Theses, published numerous research papers in proceedings to the local and international conferences on the issues pertaining to risks. She also continuously advances her knowledge attending different courses and seminars related to the study courses she delivers. Experience gained in research and industry is integrated in the study process

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Academic staff working at the study program are actively involved in research, which allows improving the quality of the academic work. They maintain international cooperation and participate in both academic and research conferences. FEEM maintains cooperation with the partners in Germany, Norway, Russia, Lithuania, Ukraine, the USA, Belarus, Bulgaria, Czech Republic, Estonia, the Netherlands, Poland, Switzerland, and elsewhere, the faculty also organizes regular student exchange with the foreign universities.

The knowledge obtained in the course of professional advancement and in the process of research is integrated in the study process:

1. Assistant Professor I. Andersone participated in the project "FORSE" Framework of Organizing Studies Entrepreneurially (2019-1-SE01-KA203-060520) – ERASMUS. The knowledge gained in the project is used to create the content of the study course Marketing;
2. Prof. J. Eriņa participated in Interreg Europe project PGI00304, CLUSTERS3 - "Leveraging Cluster Policies for Successful Implementation of RIS3", Norwegian Grant Program 2009-2014, project "EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia", agreement number NFI/R/2014/006. The experience and knowledge gained in this project are integrated into the study course Scientific Research in Entrepreneurship. Project "Advancement of the Institutional Research Capacity of Riga Technical University", Erasmus+ project "Coaches of SMEs: 5POINTS Trainings", research commissioned by administration of the Latvian Railways "Organization of the Survey on the Level of Satisfaction of Railway Passengers with the Quality of Railway Transportation" (leading researcher) and several MES research. MES research "On the financing of vocational secondary education in Latvia, analysis of updating of educational program cost coefficients, the financing model for implementation of vocational education based on the international practice and theoretically substantiated in academic environment and proposals for amendments in the regulatory enactments" (leading researcher), MES research "On base calculation items per one student and updating of the current costs of acquisition of vocational study programs, and drawing of proposals" (leading researcher), MES research "On the factors contributing to financing of vocational secondary education, conditions for the allocation of the stage budget financing to implementation of vocational study programs, educational program implementation cost components, minimal coefficients and their determination in different groups of educational programs in accordance with the current situation and actual educational program costs" (leading researcher), MES research "On updating of the study cost coefficients in tertiary education and drawing of proposals for their consolidation" (leading researcher). The acquired knowledge and skills are used in the development of the content of the study course Business Planning;
3. Prof. I. Ozola-Ozoliņa participated in the state funded research within EKOSOC-LV project 5.2.7 "Involvement of the society in social innovation for providing sustainable development of Latvia" 2014-2018, National Research Program "EKOSOC-LV"; " since 2018, I. Ozoliņa-Ozola has participated in the project funded by the EU Erasmus+ program – IMPRESS "Improving management competences on Excellence based Stress avoidance and working towards Sustainable organizational development in Europe" Experience in the project is used in the study course Personnel Management. In 2016 and 2017 she was a researcher within Norwegian grant project "EU policies impact to the transformations of the higher education and research system in Norway and Latvia";
4. Prof. J. Malahova participated in the contracted research projects "Development of a joint environmental Risk Management Plant in Siauliai and Jelgava cities" agreement No JPD2018/85/MI, "Assessment of the technological processes at the pellet production plants at

34 Plānupes Street, Inčukalns” agreement No 1-3.31/016/2015. Participation in the project has provided an opportunity to integrate the gained experience into the study course Civil Defense;

5. Prof. at the professional programs N. Balabka managed the project “Education development strategy of Stopiņi Region for 2018 – 2022” and participated in the program “Europe for Citizens” within the EU project “Clicking with Voters” implemented by Ulbroka Secondary School and the University of Daugavpils. The experience gained in the project is integrated into the study course Business Planning in the development of lectures and practical work;
6. Prof. N. Semjonova with the ERDF support has been implementing the project “Methodology for commercialization of innovative biomedical tools and assessment of the manufacturing financing model”. The results of the project implemented by Nadezhda Semjonova are integrated in the study course Principles of Finances;
7. Lecturer A. Mihņenoka participated in Erasmus+ project “Creative Start-Ups in Rural Areas (Rural Buzz)” 2017-1-LV02-KA205-001502 in 2017 and 2018. The knowledge acquired by Aleksandra Mihņenoka in the project is used in the study course Economics;
8. Prof. V. Šatrevičs participated as researcher in the following projects: project No NFI/R/2014/006 “EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia” – Nordplus, within 5.2. “Economic transformation, smart growth, governance and legal framework for the state and society for sustainable development – a new approach to the creation of a sustainable learning community” support project. The knowledge and skills acquired in the project are used by Vladimirs Šatrevičs to create the content of the study course Organizational Management and Strategic Management;
9. Prof. R. Greitāne's participation in the LDZ administration research “Organization of a survey on railway passengers 'satisfaction with the quality of railway transport” is used in the study course Project Management, involving students in project implementation, thus developing students' practical skills in project implementation.

The academic staff are actively involved in professional qualification advancement and mobility. In reporting period, they visited such countries as the United States of America, the United Kingdom, United Arab Emirates, Australia, Austria, Belarus, Belgium, Bulgaria, Lithuania, etc.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

Integration of the curricula of the study courses and logical, consecutive sequence in which these courses are acquired play a major role in ensuring that students reach the learning outcomes set for the study program. The system that facilitates regular organization of academic conferences and professional advancement seminars for improvement of professional competence has been established to promote cooperation among the academic staff at the Faculty and the University on the whole. Academic conference “Integration of methodological teaching and research work in the study process” organized on 27 April 2018 may be mentioned as an example. Such events promote advancement of the academic staff and provide opportunity to more efficiently collaborate in reaching learning outcomes and improving the study courses. The resolution of the study process

and the reached learning outcomes are discussed at the meetings of the chair responsible for implementation of the study program at the end of each semester evaluates. The results of student polling on the quality of study course implementation are very important in this respect. Solutions are jointly found based on the analysis of the current situation. For example, some changes have been introduced in the structure of certain study courses in order to avoid curriculum doubling and to improve the integration among the study courses, some changes to the study program have also suggested.

The ratio of the number of students to the number of academic staff at the academic Bachelor study program “Entrepreneurship and Management” as of 20 November 2019 is 14:1.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	Appendix 5-IBU0.pdf	5.Pielikums-IBU0.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 - IBU0.pdf	6.pielikums - IBU0.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8-IBU0.pdf	8.pielikums-IBU0.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 - IBU0.pdf	9.pielikums - IBU0.pdf
Descriptions of the study courses/ modules	Studiju kursi ENG.zip	Studiju kursi LVL.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-IBU0.pdf	Diploms-IBU0.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās_LLU un RTU_2019.pdf	Vienošanās_LLU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	AGREEMENT_2019_EN.pdf	Studiju līgumu paraugi.zip
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Uzņēmējdarbība un vadīšana_IBU0.pdf	Uzņēmējdarbība un vadīšana_IBU0.pdf

# Total Quality Management

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Total Quality Management</i>
Education classification code	<i>47345</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Inga</i>
Surname of the study programme director	<i>Lapiņa</i>
E-mail of the study programme director	<i>inga.lapina@rtu.lv</i>
Title of the study programme director	<i>Profesore, Dr.oec.</i>
Phone of the study programme director	<i>+371 67 089498</i>
Goal of the study programme	<i>The aim of the program is to develop students' professional competences in quality management and conformity assessment, as well as to develop students' research skills in order to prepare professionals capable of ensuring an integrated system management and effective quality development process in an organization, as well as improving an organization's quality culture and understanding of responsible management.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li>- <i>to provide competitive education in quality management and conformity assessment corresponding to the master's level studies and international standards;</i></li> <li>- <i>to provide students with comprehensive knowledge, develop their skills and competences according to the labour market requirements for quality managers, thus preparing students for practical work;</i></li> <li>- <i>to ensure the development and changes of the study program content, study process and research work in accordance with the changes in the fields of quality management and conformity assessment, international practice, science and didactic practice;</i></li> <li>- <i>to stimulate students' interest in life-long professional development, improvement of academic knowledge and in-depth studies, develop their research skills and promote their use;</i></li> <li>- <i>to foster students' interest in the processes of society, stimulate their development into positive, modern, responsible, ethical and capable personalities who would be able to act independently, assess risks and make decisions;</i></li> <li>- <i>to develop cooperation of the academic staff and students, facilitate practical use of research work and results obtained in quality management and conformity assessment in different organizations, promote international mobility and participation in projects.</i></li> </ul>

Results of the study programme	<p><i>Graduates of the master's professional study program "Total Quality Management":</i></p> <ul style="list-style-type: none"> <li>- <i>are able to participate in the elaboration of an organization's strategy and improve the quality management strategy by identifying and evaluating the key performance indicators;</i></li> <li>- <i>are able to plan, establish and implement an integrated management system, analyse, evaluate and put into practice quality management and improvement methods in order to facilitate a continuous improvement of an organisation's operational efficiency and quality;</i></li> <li>- <i>are able to maintain and develop an integrated management system, evaluate its effectiveness, perform self-assessment and conformity assessment, monitor organizational systems, processes and products for compliance with the requirements of customers as well as the regulatory acts and applicable standards.</i></li> <li>- <i>are able to plan and execute quality improvement projects, initiate and manage organizational change processes, use improvement methods and tools, identify staff competences and authorities, contributing to the development of new improvement solutions;</i></li> <li>- <i>are able to co-ordinate identification and assessment of risks affecting the integrated management system, develop a risk management plan, identify and implement risk mitigation measures, ensure compliance with the requirements of regulatory acts and standards regulating the system within the scope of their authority;</i></li> <li>- <i>are able to contribute to the development of an organization's quality culture, organize exchange of good practices, raise awareness of the importance of the requirements and needs of customers and other stakeholders so that the organization does not cause harm to society and the environment;</i></li> <li>- <i>are able to carry out value-added research, systematise information, integrate knowledge of different fields, analyse and interpret research results, prepare and present reports and publications, discuss the systemic aspects of quality management and conformity assessment.</i></li> </ul>
Final examination upon the completion of the study programme	<i>The State examination, including elaboration and defence of the Master's thesis.</i>

## Study programme forms

### Full time studies - 2 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>professional bachelor degree and /or the fifth level professional qualification</i>

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 1 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>40</i>
Admission requirements (in English)	<i>professional bachelor degree in quality management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 2 years, 6 months - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>80</i>
Admission requirements (in English)	<i>professional bachelor degree and /or the fifth level professional qualification</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 2 years, 6 months - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>6</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>academic bachelor degree</i>



Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Part time studies - 3 years - latvian

Study type and form	<i>Part time studies</i>
Duration in full years	<i>3</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>100</i>
Admission requirements (in English)	<i>academic bachelor degree</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

#### Full time studies - 1 years - latvian

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>0</i>
Language	<i>latvian</i>
Amount (CP)	<i>40</i>
Admission requirements (in English)	<i>professional bachelor degree in quality management, or comparable education</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>professional master degree in quality management</i>
Qualification to be obtained (in english)	<i>Quality Manager</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)

#### 1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction

The professional master's study program "Total Quality Management" was established in 2001 (RTU Senate Decision No. 461 of 24/09/2001). The study program was established as an interdisciplinary study program and it is intended for persons with higher education in various fields. The study program was first accredited on 9 July 2003 for a six-year period.

The types of the study program are **full-time intramural and full-time extramural** (20CP per semester) and **part-time intramural** (17CP or less per semester, depending on the variant of the study program). Part-time studies at RTU are organized in accordance with the decisions of the RTU Senate and administrative orders. According to the study process planning at RTU, there are 2 semesters in each study year; each semester lasts 20 weeks: 16 weeks of studies and 4 weeks of examinations. During the time period defined in this study program, the study **courses are planned in the form of modules**: 2-3 study courses take place in parallel, at the end of each an examination is taken, then the next study courses are planned in sequence. Thus, a semester is 20 weeks long without separate weeks of examinations.

From 2011 onwards, after the study program was adapted according to the student requirements, it has been mainly implemented as **full-time** intramural and **part-time** intramural studies on weekday evenings and / or Saturdays; until then the study program was mainly implemented on a part-time basis. At present, the program is no longer implemented as extramural studies on a part-time basis.

The **place of implementation** of the study program **is Riga**. It is no longer implemented in the RTU affiliations. The study program is implemented only in the **Latvian language**.

The graduates of Study Program Variant 40 CP (students who have previously been awarded a Bachelor's Degree in the quality management or comparable education) and the graduates of Variant 80 CP (students who have previously been awarded a Professional Bachelor's Degree and/or a fifth-level professional qualification) up to now were awarded a **Professional Master's Degree in Quality Management**. In these cases, the professional qualification of "Quality Manager" was not awarded. In view of the remark of the Quality Agency for Higher Education received in February 2020: *"...We would like to draw your attention to the fact that after the completion of the professional master's study program, it is only possible not to award a professional qualification to those students who have already obtained identical professional qualification at the previous level of study..."* and in accordance with Paragraph 29 of the Cabinet of Ministers Regulations No.512 of 26 August 2014 "Regulations on the State Standard of the Second Level Professional Higher Education", a draft decision on amendments to the study program is referred to the meeting of the Riga Technical University Senate on 24 February 2020 – that the professional qualification of **"Quality Manager"** is to be awarded to the graduates of Program Variants 40 CP and 80 CP.

## 1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.

During the reporting period (since the 2013/2014 academic year), the **dynamics of enrollment** has been stable. Each year, one group of 20-25 students was matriculated in the first year. The number of matriculated students decreased in 2017/2018 and 2019/2020 due to increase in tuition fees and decrease in the number of state funded study places (see Appendix 5 “Statistical data”).

Every year, there is a big **competition** for state-funded study places in this study program. For example, in 2017 the competition was 9 people per study place: for 7 state-funded places a total of 65 applications were received (of which 39 with the first, 16 with the second and 10 with the third priority). In 2018, the competition was even larger: 13 people per study place: for 7 state-funded study places a total of 93 applications were received (of which 60 with the first, 17 with the second and 16 with the third priority).

The **number of students** every study year remains stable being approximately 40-45 students, the fluctuation does not exceed 18%. In different study years more than half or 50-64% of students have been paying tuition fees. The stability of the number of students can be explained by the steady development of the quality field in Latvia and the lack of specialists (see also Section 2.1), as well as global trends, which point to a steady increase in international (e.g., ISO) and regional product, process and system standards. At the same time, conformity assessment continues to evolve from traditional assessments carried out in compliance with the requirements of the standards, and conformity assessment specialists (e.g., Compliance Officer, Sustainability Officer, etc.) are also needed in the sectors and organizations that do not use standards but develop, maintain and improve their management systems according to industry-specific criteria and guidelines (e.g., GMP, GDP, GLP) or prepare sustainability reports.

Since the study program was established in 2001, there have been 667 **graduates**, of whom 160 were full-time students and 507 were part-time students. The study program has a stable number of graduates. Each year, both students with a previously acquired professional education (program variants of 40 CP and 80 CP) and students with a previously acquired academic education (program variant of 100 CP) graduate from the study program (see Appendix 5 “Statistical data”, figure and table “Dynamics of the Number of Graduates”). Different backgrounds and experiences of students facilitate mutual cooperation and the opportunity to share experiences and enrich their competences.

Each year there are graduates who receive a **diploma with distinction**:

- in the 2013/2014, 2015/2016, 2017/2018 academic years, one graduate received a diploma with distinction,
- in the 2016/2017 academic year – three graduates,
- in the 2018/2019 academic year – two graduates.

**The Golden Fund established at RTU** includes only the most outstanding and capable RTU alumni according to their academic achievements and social activities. In the 2013/2014 academic year, two graduates of the study program Baiba Drēgere and Ilze Kairiša were included in the Golden Fund, in 2014/2015 – Jānis Svīklāns, in 2015/2016 – Inna Mina, in 2016/2017 – Aiga Leimonte, in 2017/2018 – four graduates: Aija Medne, Anita Balode, Ilva Līgotne and Iveta Benga, in 2018/2019 three graduates Alise Kapteine, Lelde Zemberga un Arta Pīlēna.

Not all students who start their studies graduate. The number of **dropouts** varies from year to year, and the most common reason for dropouts is academic failure (see Appendix 5 “*Statistical data*”, figure “Student drop-out rates and the reasons”). Analysing the reasons for exmatriculation in the reference period, it can be concluded that out of all extramatriculated students, 67% were exmatriculated for academic failure, 16% of their own volition, 11% did not resume their studies after academic leave and 6% did not start their studies after matriculation.

Most students are exmatriculated in the first year of study. The most common reasons for dropout are lack of motivation, inability to combine studies with work, financial problems and personal reasons such as family growth.

The students’ jobs are not always directly related to the field of quality management that they are studying. This means that students have to invest more work and time in researching the topic for their master’s theses. Therefore, in the second and third study years, the most common reasons for dropping out of studies are related to the difficulty in completing the final theses.

### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

The professional master’s study program “Total Quality Management” corresponds to the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014 “Regulations on the National Standard for the Second Level Professional Higher Education” (see Appendix 6 “*Compliance with national standard*”) and the respective RTU normative documents. The volume of the program and the duration of its implementation depend on students’ previous education. The study program matriculates:

- applicants with a Professional Bachelor’s Degree in quality management or comparable education – **study volume 40 CP / 60 ECTS**. The duration of full-time intramural studies is 1 year, part-time intramural studies – 1 year and 6 months. These students have completed all of the basic study courses required by the professional standard during their bachelor’s studies, and in master’s studies, they learn the management component and integrated management systems;
- applicants with a Professional Bachelor’s Degree and/or 5th Level Professional Qualification – **study volume 80 CP / 120 ECTS**. The duration of full-time intramural studies is 2 years, part-time intramural studies – 2 years and 6 months;
- applicants with an Academic Bachelor’s Degree – **study volume 100 CP / 150 ECTS**. The duration of full-time intramural studies is 2 years and 6 months, part-time intramural studies – 3 years. For these students, in addition to the 80 CP of the core curriculum, they have internship of 20 CP.

The study program is implemented in the volume of 40 CP, 80 CP and 100 CP in order to fulfil the provisions of the Cabinet of Ministers Regulations No. 512 “Regulations on the National Standard for the Second Level Professional Higher Education” Paragraph 20 that “*The duration of full-time studies of the master’s program is one to two years, provided that the total duration of bachelor’s and master’s studies is not less than five years*” and specified in Paragraph 28 that “*In the master’s program the choice of study courses, content and volume of study courses, as well as internship content for the degree to be obtained is determined **according to the professional standard** (if*

it is approved by the Tripartite Cooperation Sub-Council for Vocational Education and Employment – PINTSA) ". In this case, the content of the study program is determined by the **professional standard "Quality Manager"** approved by PINTSA on August 14, 2019 (available only in Latvian: <https://visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-110.pdf>).

**The 100 CP studies** are applicable to students who have obtained an academic **bachelor's degree** in the previous study period to ensure the provisions of Paragraph 23.3: "*The compulsory content of the master's program consists of **internship in the volume of at least 26 credit points**, if it is intended for graduates of the bachelor's program*" and specified in Paragraph 27 that "*students of the master's program with a previously obtained **academic bachelor's degree** after successful completion of the master's program obtain a fifth level **professional qualification***". Thus, **in order to simultaneously ensure all** the above-mentioned **requirements** of the Cabinet of Ministers Regulations No. 512, the 80 CP program, with the duration of full-time studies is 2 years (including internship in the volume of 6 CP), adds a compulsory **internship in the volume of another 20 CP** specified in Paragraph 23.3 thus reaching the volume of 26 CP), **consequently the volume of the study program increases to 100 CP**.

Students after successful completion of the master's study program are awarded a **Professional Master's Degree in Quality Management and professional qualification - Quality Manager** corresponding to the 5th level of professional qualification (henceforward PQL) and the 7th level of the Latvian Qualification Framework (henceforward LQF).

Upon completion of the professional master's study program "Total Quality Management", education may be continued in the doctoral study program "Management and Economics" of RTU or in a doctoral study program of another higher education institution.

The title, aim, tasks of the study program, the learning outcomes to be achieved and the professional qualification to be awarded are closely related, for details on the conformity of the study program with the professional standard, see Appendix 7 "*Conformity with the professional standard*" and on the internal coherence of the study program – the correspondence of the title, aims and tasks to the learning outcomes – see Appendix 8 "*Mapping of the Program*". The content of the study program corresponds to the requirements of the labour market, which are defined in the professional standard "Quality Manager", regardless of the variant of the program. All three variants are designed so that they give graduates the competences required by the standard.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The professional master's study program "Total Quality Management" **is currently the only one in Latvia** and there are only a few similar programs in the international educational area. This fact, combined with the rapid increase of the role of quality management in the world, creates favourable competitive conditions for graduates; specialists are needed both in Latvia and abroad. The **topicality** and sustainability of the study program is evidenced by the increasing number of institutions implementing and maintaining quality management systems in Latvia every year, including the number of accredited institutions, as well as cross-border accreditation and industry representation (see Annual reports of Latvian National Accreditation Bureau: [https://www.latak.gov.lv/index.php?option=com\\_content&view=article&id=86&Itemid=439&lang=en](https://www.latak.gov.lv/index.php?option=com_content&view=article&id=86&Itemid=439&lang=en) partly in Latvian). For example, the number of institutions accredited in Latvia during the reporting period of 2013-2019 has increased by 25%; since 2015 there have also been 5-7 cross-border accreditations every year. The topicality of the study program is also evidenced by the fact that the profession of quality engineer is included in the Cabinet of Ministers of the Republic of Latvia Regulations No.108 of 20/02/2018 "Specialties (professions) in which a significant shortage of labour force is forecasted and in which foreigners can be invited to work", therefore the study program graduates with a previously obtained engineering degree or engineering qualification are in particular demand. Professional qualification of quality manager, incl. ability to plan, organize and manage the work of the staff in the interdisciplinary field, to ensure the quality of systems, processes, products and services, conformity assessment and management of integrated governance systems, provides significant support to managers of organizations of various industries.

According to **short-term labour market forecasts** based on employer surveys, it was planned to create at least nine new jobs in "specialist in HR and career, quality management systems and risk management" in 2019, including six in Riga and three in Kurzeme. In all cases, employers indicated that specialists are to have a higher professional education. Three of the reasons for creation of new jobs are related to the expansion of businesses and six – to the increase in the volume of work. In addition, the report mentions that 17 long-term vacancies in the Pierīga region have been there since 2018.

As much as possible, RTU keeps track of the alumni's careers and according to the SRS data on the **competitiveness** of the study program, all graduates are employed as quality managers, quality management system specialists, managers of quality management departments, integrated (quality, environmental, occupational health and work safety, etc.) system managers, quality engineers or quality management system specialists in organizations in various sectors of the national economy, incl. conformity assessment bodies, as self-employed persons and sole proprietors, who provide consulting and auditing services related to quality management. The graduates are able to identify the multiple interests of the organization's management, customers, owners and society, and are able to analyse, evaluate, design, disseminate and implement quality and process management and development techniques to foster continuous improvement of the organization's performance.

The study program ensures topicality of the content of the study courses and its correspondence to the needs of the industry, labour market and trends in science development. The award of the Master's Degree and qualification is based on the achievements of the quality management industry. Today, quality management is part of every organization's management process. Total quality management contributes to organizing day-to-day operations, improving business performance, increasing customer satisfaction, ensuring long-term success, efficiency and effectiveness of the organization, creating an environment where processes, products and services meet customer requirements and needs, are safe to use, create value for society and the environment. During the studies students learn preventive, operational and strategic management

methods of quality assurance and improvement, quality e-technologies, research the general methodology of total quality improvement, building superiority and consumer interest, as well as acquire methods of conformity assessment of products, processes, services, systems, persons or institutions, and principles of the harmonized system.

The content of the study program reflects the development trends of the industry and ensures training of specialists. Mastering the integrated management approach is based on the need to ensure the organization's ability to operate in a context of multi-functionality and interdisciplinarity – aligning the requirements of multiple systems to create a single entity. The importance of risk management is growing in the world (as evidenced by the recent editions of the ISO family standards and the wide use of the EFQM model) because in changing and unpredictable circumstances, risks must be dealt with proactively in order to maintain stability and competitiveness, without losing resources or the business niche.

The **content** of the study program **is updated** according to the trends in the industry, labour market and science development. The study program is improved every year, taking into account the results of student surveys as well as recommendations of employers. The study program involves quality management specialists working in various fields and organisations, such as Latvian Quality Association, Latvian National Accreditation Bureau (LATAK), State Construction Control Bureau of Latvia (SCCB), Latvian Standardization Bureau, Riga Social Service, SJSC “Latvijas Pasts”, Latvia's medical institutions, as well as various conformity assessment and certification bodies and state regulatory authorities.

The Department of Quality Technologies of RTU FEEM involves in the study process Business Efficiency Association (BEA) Board members – industry professionals with in-depth theoretical knowledge and extensive practical experience in applying efficiency methods in different companies. The understanding of the efficiency in organizations and methods of its improvement in Latvia appeared relatively recently. The importance of efficiency in improving the performance of organizations and promoting their continuous development is recognized by more and more managers in Latvia who successfully use Lean or economical management in their organizations. Involvement of industry professionals in the study process enhances students' understanding of ensuring development and competitiveness, develops their ability to seek new forms of work organization, process improvement, product and service innovations, thus contributing to higher productivity, quality and economic efficiency, enabling competitive wages to be paid, and at the same time generating higher returns than the industry averages. Due to close cooperation between the Latvian Quality Society, study program management, academic staff and industry professionals, a **new professional standard** was developed and approved in 2019. The study program fully ensures the acquisition of knowledge specified in the professional standard (see Appendix 7, “Compliance of the study program with the professional standard”).

In accordance with the internal quality assurance system, a self-assessment group of study programs is formed every year. The working group annually audits the program and discusses necessary changes with students and all the teachers involved in the program implementation. Also in 2019, a meeting of the Department of Quality Technologies (Minutes No. 22603-2/4) established a self-assessment working group that includes the academic and administrative staff, as well as student representatives and industry professionals.

Overall, during the reporting period, **several changes were made** to the program in line with the topicalities in the labour market and the professional standard requirements.

In the **2014/2015 academic year** there were some minor changes in the study program, the course “Quality Improvement Project Management – 4 CP” was included in Section B.1 Field-specific study courses.

In the **2015/2016 academic year, significant changes** were made to the program due to significant changes in the situation in the industry and in the regulatory framework. Thus, according to the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014 "Regulations on the National Standard for the Second Level Professional Higher Education", it was possible to reduce the duration of the program. The changes were evaluated and approved in accordance with the normative acts and a positive decision of the Accreditation Commission was received. The volume of the study program for students with a previously acquired Bachelor's Degree was changed from 120 to 100 credit points, the duration of full-time studies was reduced from 3 to 2.5 years and of part-time studies from 3.5 to 3 years. The internship part (Part D) in the 100 CP variant was changed from 32 CP to 26 CP. In the 100 CP variant, the Final / State Examination Part (Part E) "Master's Thesis with a Project Part" – 28 CP was replaced by "Master's Thesis" – 20 CP.

Several changes focused on increasing the proportion of professional competences and reducing the amount of general knowledge in line with the current version of the professional standard. In the 80 CP and 100 CP variants of the study program, the Humanities and Social Subjects section (B.2) was excluded from the compulsory elective study courses part (B.2) and the Pedagogical and Psychological Subjects section (B.5) was excluded in all variants of the study program because this is no longer required in the Cabinet of Ministers regulations. At the same time, certain topics covered by the professional standard were included in other study courses.

No changes were made to the program in the **2016/2017 academic year**.

In the **2017/2018 academic year** changes in part B.1 were approved, introducing the study course "Social Responsibility and Business Ethics – 4 CP" in all variants of the study program so that students who had not had such a course at the bachelor's level could acquire it.

In the **2018/2019 academic year** changes were made in the compulsory part of the study program in all program variants, the study course "Research Methodology – 2 CP" was excluded and the study course "Contemporary Research Methods in Quality Management – 4 CP" was introduced. At the same time, the course "New Product and Process Development Methodology – 4 CP" was transferred from Part A to B.1. As this course is currently being offered at the bachelor's level in most study programs, it is no longer compulsory for all students at the master's level.

In addition, the study course "Methods of Statistical Analysis – 2 CP" was included in the 80 CP and 100 CP program variants for the students who had not had such a course at the bachelor's level.

The last changes were made in the **2019/2020 academic year** to ensure that the study program fully complies with the requirements of the professional standard approved in the autumn of 2019:

- The study courses "Risk Analysis – 4 CP" and "Quality Cost and Resource Analysis – 4 CP" were transferred from Part B.1 to Part A. In the 80 CP and 100 CP program variants the volume of Part A was increased from 20 CP to 28 CP, and the volume of part B was reduced from 34 CP to 26 CP.
- The course "Special English Language – 2 CP" was transferred from Section B.6 Languages to Section B.1 Field-specific study courses to enhance the English language learning in the context of quality manager's professional activities.
- The study course "Methods of Quality Assurance (Study Project) – 2 CP" was excluded from the study program, because the respective learning outcomes are provided in Part A study courses and study projects in quality management and conformity assessment.
- For students with a Professional Bachelor's Degree in Quality Management (in the 40 CP variant), the course "Strategy and Change Management – 4 CP" was included, so that it could be acquired if such or similar course had not been acquired during the bachelor's level studies.



- In Section B.1, in all program variants, the course “Talent and Personnel Management – 4 CP” was replaced with the course “Integrated Talent Management – 4 CP” for students who had not had such or similar course at the bachelor’s level.

In the implementation and development of the study program a close connection with the development **trends of science** is ensured. Every year the academic staff of the study program participates in the international conference “Quality Management and Organization Development / an International Conference on Quality and Service Sciences” or QMOD / ICQSS where specialists – scientists and practitioners from all over the world – Europe, Asia, Africa and the Americas – come together. This conference is the world’s leading conference on quality management. Currently, six doctoral students of the Institute for Quality Engineering are integrating their current research on quality management, conformity assessment, certification, market surveillance, quality culture, customer’s voice and stakeholders into the study program (see Section 4.2).

Students develop research works on topical issues in the field by studying and analysing scientific and professional literature in libraries and international databases. Students apply their knowledge and insights in practical research during internship in Latvian or foreign companies, by developing and implementing solutions for business improvement. Students present their research results at the annual RTU Student Scientific Conference and summarize them in their master’s theses, which are presented at the conclusion of the studies. The results of individual studies are also summarized in scientific publications (for more information, see Section 2.5).

As mentioned above, the quality of the study program is evaluated at the end of each study year by the self-assessment working group, and improved according to the development trends of the labour market, science and industry.

The high quality of the study program is also evidenced by the results of the international rating Eduniversal. The French rating agency and consulting company SMBG every year assesses the best 1,000 universities and business schools in the Eduniversal Business Schools Ranking and the top Masters and MBA programs in 50 different specializations in 154 countries worldwide, based on **recommendations from recognized education experts and employers and alumni evaluation**. The **professional master’s study program “Total Quality Management Program”** has been included in the Eduniversal Best Masters Ranking for the second year, confirming its quality and international competitiveness. Among the top 100 university and business school programs in the world, in 2018 it ranked 31st. However, already **in 2019**, the evaluation of the program has improved compared to the previous year, the program has risen by 19 places and is now **ranked 12th among the top 100 master’s study programs in the world in the field of quality management**.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program ensures connection between the information included in the study courses, the learning outcomes, aims and methods, as well as connection of each study course with the aims and learning outcomes of the study program.

The professional master's study program "Total Quality Management" corresponds to the Cabinet of Ministers of the Republic of Latvia Regulations No.512 of 26/08/2014 "Regulations on the National Standard for the Second Level Professional Higher Education" (see Appendix 6 "The Compliance with the National Education Standard ):

- The aims and tasks of the study program are in line with those defined in the national standard (see the program description, part on parameters).
- The content of the study program is in line with the requirements of the national standard. The main parts of the study program are: study courses; internship outside the educational institution (in the text – internship); state examination, an integral part of which is the elaboration and defence of the master's thesis.
- The volume of the study program and its structure are in line with the requirements of the national standard. The volume of the study program and study courses is expressed in credit points.
- The principles of assessment are in line with the requirements of the national standard (see the description of each study course): positive achievements are summed up; assessment is compulsory at the end of each course; transparency and clarity of requirements; variety of types of testing.

The compulsory content of the study program consists of study courses which ensure the acquisition of the latest achievements in the theory and practice of the industry, study courses in research work, creative work, project work and management. The compulsory study courses provide students with the knowledge in the specialty and develop the skills necessary for professional work, as well as develop communication and research skills. According to Paragraph 23 of the aforementioned Regulations, the program includes:

- study courses, which ensure acquisition of the latest achievements in the theory and practice of the industry, the total volume of which is at least 5 credit points: Integrated Management Systems 4 CP, Risk Analysis 4 CP, Quality Management 6 CP, Conformity Assessment 4 CP;
- study courses in research work, creative work, project work and management at least 3 credit points in total: Contemporary Research Methods in Quality Management 4 CP, New Product and Process Development Methodology 4 CP, Quality Improvement Project Management 4 CP, Strategy and Change Management 4 CP, Integrated Talent Management 4 CP.

According to Paragraph 24 of the aforementioned Regulations, the program also includes study courses which ensure achievement of professional competence in entrepreneurship if it has not been acquired in a lower level study program. The required knowledge is integrated in different study courses, for example: New Product and Process Development Methodology, Quality Improvement Project Management, Strategy and Change Management, Integrated Talent Management, Process Analysis and Management, Quality Cost and Resource Analysis and others.

According to Paragraph 24 of the aforementioned Regulations, if a student has not acquired the requirements specified in the Civil Defence Law in a lower level study program, they acquire them in addition to the master's study program in the volume of 1 CP. In order to meet this requirement, FEEM once a year plan a course "Civil Defence – 1 CP" for students of all master's study programs who have not completed it at a lower level of studies. The course is provided free of charge. Whereas, fulfilment of the requirements of the Environmental Protection Law is integrated in the study program courses "Integrated Management Systems" and "Risk Analysis" as it is required by the specifics of the profession. Additional topics are included in the course "Social Responsibility and Business Ethics" if the student has not acquired it at the bachelor's level.

The compulsory elective courses of the study program are intended to enable prospective

specialists to deepen their knowledge in the chosen specialty. Internship is an essential part of the study process and the studies end with the state examination, which includes the master's thesis defense.

The study plan is developed taking into account the consistency of the study content (see Appendix 9 "Study plan of the program"). The study program is designed to ensure successive acquisition of theoretical and practical subjects, moving from the knowledge of quality management, conformity assessment and organizational development issues to the use of practical methods and tools. In the first year, more emphasis is placed on fundamental knowledge of the study field on quality and process management, compliance assessment and risk management; in the second year – on strategic management, change and innovation development issues and understanding of the integrated management system. During the whole study period, research activity is carried out.

Figure "Logic of the Study Program Development and Interconnection of Courses" shows the logic of creation of the professional master's study program versions with the volume of 80 CP and 100 CP. The first horizontal line shows the continuity of the study courses in the field of quality management, the next horizontal line – in the field of strategy, development and improvement, and the third horizontal line – in the field of conformity assessment. The study program has several elective courses (marked with an asterisk). Students have the opportunity to take four 4 CP courses out of six elective courses and two 2 CP courses out of four elective courses, or three of the six 4 CP courses and all four 2 CP courses. This approach gives students greater opportunities to choose the courses they need based on their previous education, professional experience and career needs. The courses on a darker blue background are also acquired in the 40 CP version of the program.

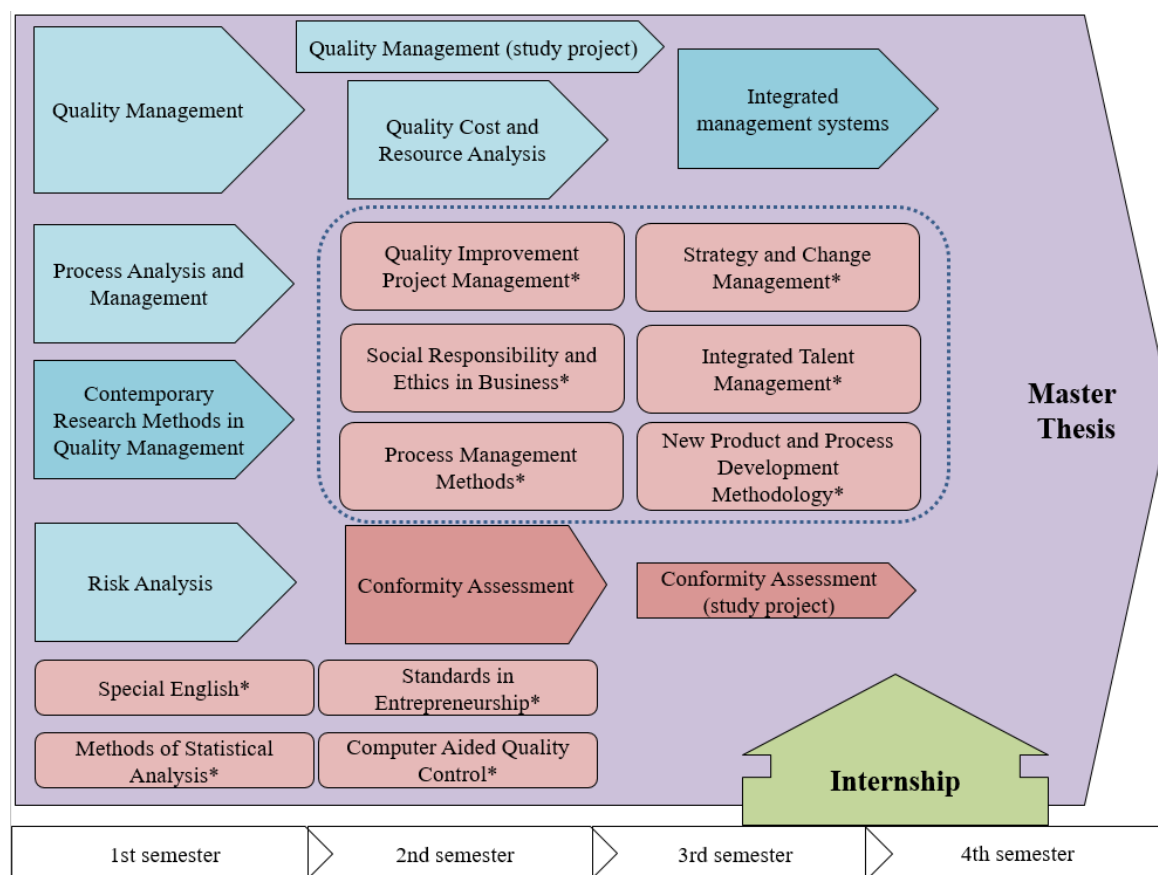


Figure "Logic of the Study Program Development and Interconnection of Courses"

In the basic program implementation, in the 80 CP and 100 CP variants, students start the program with a block of study courses in quality and process management – learning quality management and related contemporary research methods, process analysis and management and risk

analysis. Depending on their previous field of study and professional experience, students choose two of the following four courses: “Special English”, “Standards in Entrepreneurship”, “Methods of Statistical Analysis”, and “CAQ Computer Aided Quality Control”. The courses are designed to provide additional skills in statistical data analysis, technology use, and professional terminology in quality and relevance (if not learned at the bachelor’s level).

Practical application of knowledge is implemented sequentially by developing a project on quality management, learning resource and quality cost analysis, conformity assessment, as well as acquiring general knowledge relevant to any manager’s work. Then, the development of creativity, innovation and strategic management competence is promoted – students plan and develop integrated management systems in line with the requirements of several standards, perform integrated management system audits, develop proposals for improvement of the system, work on conformity assessment project, improve processes, develop their ability to manage quality improvement projects, participate in strategy development and change management. Therefore, depending on their previous field of study and professional experience, students also choose four of the following six courses: “Quality Improvement Project Management”, “Strategy and Change Management”, “Social Responsibility and Business Ethics”, “Integrated Talent Management”, “Process Management Methods”, “New Product and Process Development Methodology”.

An important part of the second year is internship and elaboration of the master’s theses, where the students demonstrate their professional competence in quality management or conformity assessment, ability to do research, select, collect, analyse and interpret data, ability to cooperate, create quality culture and understanding of responsible management.

The 40 CP variant of the study program is for those applicants who have already obtained a Bachelor’s Degree in Quality Management and have completed all the requirements of the professional standard for process quality engineer at the previous stage of studies, therefore in the master’s studies they only acquire management competency and integrated management systems. The 40 CP variant of the study program focuses on the development and improvement of integrated management systems, as well as research methodology. In addition, students choose one of the following three study courses: “Quality Improvement Project Management”, “Strategy and Change Management”, or “Integrated Talent Management”, and develop professional terminology in English. Students develop their ability to act independently and responsibly, assess the situation, make suggestions for improvement and justify their decision.

All conditions for obtaining credit points are defined in the description of each study course (see Appendix 10 “Description of study courses”). The content, volume and assessment criteria of testing correspond to the content of the study courses and the requirements of professional qualification skills and knowledge. The aim, tasks and learning outcomes of the study program are achieved as a result of consecutive acquisition of study courses (see Appendix 8, “Mapping of the learning outcomes of the study courses” and Figure “The structure of the study program”).

According to the requirements of the professional standard, knowledge acquisition at the comprehension level accounts for 44% and at the usage level for 54%, whereas at the concept level only for 2% of the study program content.

Comparison of Appendix 8 data with the analysis of the compliance of the study program with the knowledge specified in the professional standard at the level of concepts, understanding and use in Appendix 7 confirms that the content of the compulsory courses ensures the achievement of the learning outcomes and the fulfilment of the standard requirements.

The analysis of the impact of the study courses on the learning outcomes of the study program shows that the impact of the study courses on achievement of learning outcomes of the study

program is even (see Appendix 7 and Figure “Interrelation between the study program title, LQF, professional qualification (or professional standard) and learning outcomes”).

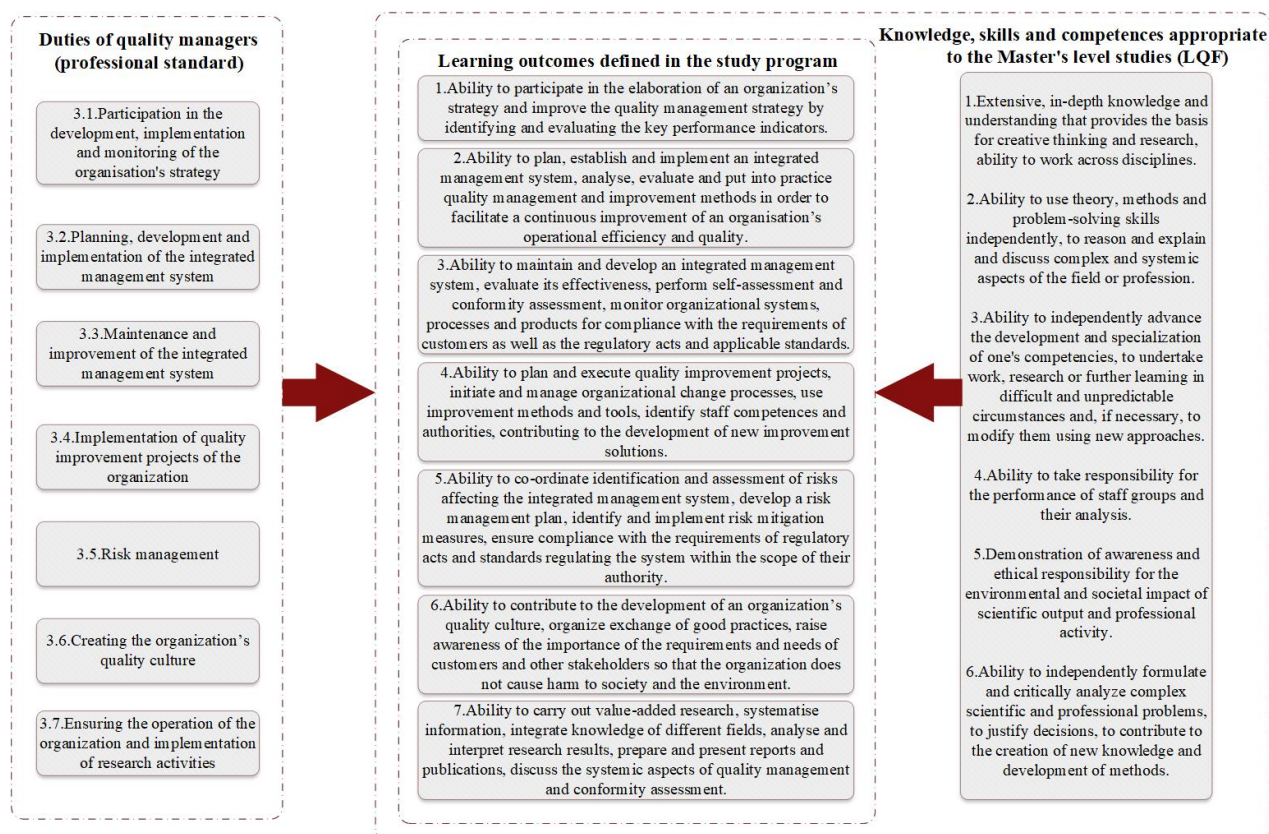
A slightly greater emphasis in the study courses is put on the 3.1, 3.3 and 3.4 duties of Quality Manager, thus developing the students’ competence and ability to participate in the improvement of organizational development strategy and quality management strategy; ability to maintain and develop an integrated management system, evaluate its effectiveness, perform self-assessment and compliance assessment, monitor the organization’s system, processes and products for their compliance with the requirements of customers, normative acts and applicable standards; plan and implement quality improvement projects, initiate and manage organizational change processes, use improvement methods and tools, identify staff competencies and powers, contributing to the development of new improvement solutions.

At the same time, there is a development of students’ abilities to fulfil the 3.2 and 3.7 duties of Quality Manager in the professional standard, as well as the requirements of 7th level of LQF – the students’ ability to carry out research with added value, systematize information, integrate knowledge of various fields, analyse and interpret research results, prepare and present reports and publications, discuss systemic aspects of quality management and conformity assessment, plan, design and implement an integrated management system, analyse, evaluate and implement quality management and development methods in order to promote continuous improvement of the efficiency and quality of the organization’s operations.

As well as in the standard requirements, focus is put on the 3.5 and 3.6 duties of Quality Manager in developing the students’ competence to coordinate the identification and assessment of risks affecting the integrated management system, risk management plan development, ability to ensure compliance with the normative acts and standards regulating the system within the scope of their authority, ability to contribute to the organization’s quality culture; organize best practice exchange events; raise awareness of the importance of the requirements and needs of clients and other stakeholders in order to ensure that the organization does not cause harm to society and the environment.

As in the structure of the study program content, in the learning outcomes the emphasis is put on the students’ professional competence or ability to maintain and improve the integrated management system and on the development of research competence. The learning outcomes of the study program are closely related to the requirements of the 5th level of professional qualification defined in the professional standard and fully ensure the level of knowledge, skills and competence defined in the 7th level of LQF. (See Figure “Interrelation between the study program title, LQF, professional qualification (or professional standard) and learning outcomes”).

## Interconnection between name of the study program, LQF, professional qualification and learning outcomes



### 2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.

The methods used in the study program contribute to the achievement of the aims and learning outcomes of the study courses and program, taking into account the principles of student-centered teaching and learning. One of the basic principles of RTU FEEM study programs is democracy and dialogue with students, their active involvement in the improvement of the study process. Students can realize their participation in the improvement of the study process directly – by expressing their wishes to the teacher, head of the department, study program director, or through the student self-government represented by its members in the FEEM Council, RTU Senate and RTU Senate commissions, as well as the RTU Academic Convention. FEEM relationships with students are characterized by mutual trust, respect and honesty. Conformity with the principles of student-centered learning (hereinafter – SCL) is constantly ensured. As defined in the SCL Manual, **student involvement in the study process and content development** is assured thus creating additional responsibilities and authority for students. Students are provided with the opportunity to influence their own study process, exercise their autonomy, and provide feedback on the study process in line with their expectations. The FEEM student self-government plays an important role in providing links between the students, academic staff and program administration, and it actively participates in all these processes and conducts annual evaluation of the academic staff.

Once every semester students evaluate the work of the academic staff by providing answers to a survey questions (in the ORTUS environment). Students evaluate the work of the academic staff, the content of the study courses, the sufficiency of theoretical knowledge for understanding and acquiring the material, individual tasks, the acquired practical skills, the attitude of the academic staff and cooperation with the students, the assessment methods and criteria, and other indicators. The questionnaires are anonymous. At the beginning of each study course, the teacher informs the students what changes have been made to the study course on the basis of the recommendations and comments of the students of previous years, as well as the results of the survey. Each semester the study program director discusses with the students the factors that influence their opinion about the quality of studies; this procedure is described in the RTU Regulations for Academic Group Leaders. As a result of the discussions, the study program director proposes changes in the content and methods of the study courses (see also Section 2.6 for the impact of surveying and discussions).

Self-assessment of the study program is carried out annually, involving and asking the students, academic staff and industry representatives, and is discussed at the meeting of the department. The involvement of students and graduates in the improvement of the study process is evidenced by the aforementioned actions of the study program administration after receiving the survey results, and related changes and improvements in the study process.

In the Department of Quality Technologies, additional involvement of students in the study process and content improvement is carried out within the framework of an annual research, where students' opinion is found out and improvement opportunities are identified using the Quality Function Deployment Methodology (QFD). One of the evidences is a study conducted in 2015-2019 using the Quality Function Deployment Methodology (see also Section 2.6 for QFD usage).

**Full achievement of learning outcomes** is ensured in the study program. The learning outcomes are formulated at the level of the study program and study courses. At the beginning of each study course, the learning outcomes to be achieved are discussed with the students and they can also read them in the ORTUS. As mentioned above, a link between the study program and the learning outcomes to be achieved is ensured. The interconnection of study courses and their succession in the study content acquisition is evaluated at least once a year and additionally in cases when suggestions are received from students. According to the learning outcomes of the study program, the content and volume of the study courses in credit points are formed, while according to the learning outcomes of the study course, the topics and their volume in hours are formed. The learning outcomes in all study courses are tested using appropriate assessment methods. Students have the opportunity to challenge the assessment of their study results – it is stipulated in the Regulations on the Assessment of Study Results (29/05/2017 Senate Decision, Minutes No.610).

The study program is supplemented and updated in the process of its implementation on the basis of labour market research and consultations with employers and practitioners. Recommendations from alumni, students and academic staff play an important role in improving the study process. (See also Section 2.6)

The study program is implemented in several variants, different study types and forms, **uniformly complying with** the requirements formulated in normative acts, the basic principles of study organization set by RTU, and fulfilling all the requirements of study courses. The **course descriptions** of the study program define a set of relevant knowledge, skills and competences and their evaluation system, set the learning outcomes for the achievement of which credit points are awarded, the credit points **do not depend on the implementation** variant, type or form. The procedure for assessment of students' knowledge, skills and competences at RTU is determined by



the Senate decision of 27 May 2017 “On the Regulations for the Assessment of Learning Outcomes”, complying with the basic principles and procedures for assessment of education at the respective study level defined in the Cabinet of Ministers regulations. In the assessment of students’ achievements, a summative assessment system is used, where the final mark is formed from several components.

The type of full-time studies corresponds to 40 CP in an academic year and the amount of 40 academic hours of work of a student in one study week, which makes up 1 CP. In order to meet the requirements set in the program and in each course, in comparison with full-time studies, **part-time studies** have a **longer program acquisition time** and a smaller number of credit points – less than 40 CP per academic year and less than 40 academic hours per week. Thus, when implementing the study program in **different types and forms of studies**, the study courses differ only in the **number of full-time** (or contact hours) **and independent work hours and the course teaching methodology** or didactic approach. The pedagogical methods of the study course implementation, as well as the assessment methods are chosen by the teaching staff responsible for the study course, according to the specifics of the course content and the study program, as well as the needs of the students.

The pedagogical process involves a wide variety of **study methods**: individual and group work, individual and group consultations, presentations of results, project work, situation simulations (e.g., in risk assessment), tests, oral and written exams, field trips, discussions, etc. At the beginning of each study course, the teacher explains the purpose of the course, identifies the students’ level of knowledge, their previous experience, expectations, and other relevant information. The academic staff and the students agree, as far as possible, on the study process, methods, assessment, etc. By combining teaching and learning methods, their relevance to different groups of students is ensured, and students with different needs are given the opportunity to acquire knowledge and skills in the most appropriate way.

The study process is developed as an active, engaging process for the students and includes lectures, seminars, discussions, case studies and practical problem solving, individual and group work, including research work, company visits and field trips, internship, guest lectures by employer representatives. The pedagogical process uses the methods of acquiring knowledge, developing skills and abilities, as well as methods of applying knowledge and creativity. These methods are usually applied both when providing information and testing. This principle is reflected in the work of the academic staff in individual topics and throughout the whole course.

The academic staff organise students’ cognitive activity in various ways – inductive (from individual to general), deductive (from general to individual), reproductive (formulating ready-made facts, evidence, putting emphasis on the main ideas), and often use the problem-finding method. Both monological approach is used – a student’s independent activity and presentation of their point of view, as well as dialogical – student collaboration, and research – literature studies, case studies, simulations, seminars etc.

The academic staff use several ways of presenting information – verbal, visual and practical methods are used in the study process. Narration, presentation, brainstorming, discussions, role-plays (e.g., Six Thinking Hats) are often used to present and consolidate theoretical knowledge. They combine elements of verbal and visual methods, whereas practical methods – case studies, exercises with a specific purpose, as well as intermediate tests – are more often used to enhance what has been learned. At the end of topics and study courses, knowledge-testing methods are used: tests, presentations as a synthesis of the acquired material, which allows the student to demonstrate the ability to focus on the goal (topic), select information, systematise it, explain it clearly and justify their opinion by answering questions.



There is a strong focus on interactive learning methods, the main purpose of which is learning to learn, find information, use different sources of information, make judgements, work with others, make decisions and undertake responsibility. The cooperation here is both ways: student-teacher and teacher-student. For more information, see about teaching and learning methods in Section 4.5 and in study course descriptions.

**Independent studies** of students play an important role. The description of independent studies is included as a compulsory part in the study course description. Students' ability to learn independently is purposefully developed in all study courses. Students acquire research skills by regularly working with literature and internet resources in order to successfully develop a variety of study works, internship reports and master's theses. In this way, students' research work and work with international scientific databases available in the RTU library with electronic access from the ORTUS is also promoted. During the study process, students have to develop study papers in "Conformity Assessment" and "Quality Management", which provide the opportunity to acquire research skills.

**Mobility** programs are becoming increasingly noticeable in the daily life of the university and intercultural communication opportunities grow. Students who come to FEEM within the framework of mobility are supported at the level of student self-government, study program and FEEM management. (See Section 2.7)

The academic staff members of the program regularly improve the content of the study; the best study organization methods and principles are introduced in the study process. Consistency with the strategy for the development of the European Higher Education Area enables both the academic staff and students to be mobile and enrich their knowledge and experience at foreign higher education institutions, and also provides job opportunities in the rapidly changing international work environment. KTK takes over the best practice that students and academic staff members have gained during their mobility abroad. Foreign experience is integrated into the pedagogical process, facilitating the implementation and internationalization of student-centered education. The experience and insights of the academic staff are discussed both at the department meetings and in informal communication during daily work. For example, participation in the annual QMOD conference and the experience gained in interdisciplinary research teams have encouraged doctoral students with different research interests to work more actively on issues common to all – publications, methodology, methods, scientific theories, etc. All the academic staff members actively participate in the FEEM academic conference and scientific conference. For more information about the scientific activities of the academic staff, see Section 4.5 and the Study Direction Report.

The study environment and infrastructure of FEEM are tailored to **various needs of the student population**, maintaining the quality of the study process. The infrastructure is adjusted to fit the needs of disabled students. There is also differentiated support for various social groups of students; it can be received upon applying to RTU Student Parliament.

The master's study program offers students the opportunity to combine work and family life with their studies: studies are on weekday evenings, but not every day, and on some Saturdays. Students have access to consultations with the academic staff, ORTUS provides all current information on studies, types and conditions of support, entertainment and sports activities, as well as communication with groupmates and teachers of the study courses, including the opportunity to apply for consultations.

FEEM and RTU overall have a strong and transparent system for **developing the competence of the academic staff**. Several departments, including the HR, Science, International Relations, Studies, and Academic Excellence Centre regularly inform the staff about opportunities to develop

their competencies in research, methodological and didactic skills, as well as general competencies (foreign languages, information technology, public speaking and presentation skills, etc.) and specific competencies in the professional sphere. Information on the scientific activities of the academic staff is stored in the ORTUS environment.

RTU Department of Studies and Professor Inga Lapiņa, Deputy Dean of FEEM and the study program director, organise seminars for the academic staff and students, explaining the principles and implementation solutions of student-centered learning. The student-centered approach is implemented in everyday work: the academic staff members constantly improve the quality of study courses based on the latest trends and findings in the industry, and students' opinions.

In order to carry out pedagogical work at a high level, methodological seminars are organized for RTU academic staff members on the possibilities of using different teaching methods, experience, good practice and sharing success stories. The head of the department conducts individual talks and these issues are discussed at the meetings of the department. Competence development activities are planned in the FEEM staff development plan and the KTK staff development plan.

In several documents – the Code of Academic Integrity, Regulations on the Evaluation of Learning Outcomes, Methodological Guidelines for the Development of Study and Final Theses, etc. – guidelines for teaching and learning are defined.

New, innovative methods enter the study process due to cooperation with foreign universities, Latvian entrepreneurs and organizations. For example, the Business Efficiency Association (BEA) professionals are involved in the study process. The purpose of this cooperation is to educate students – future leaders of companies and quality systems – on how to use efficiency methods in organization management and work process improvement. Such cooperation significantly improves the quality of studies, students independently evaluate the quality, safety and sustainability of business processes in companies, determine the content and relevance of core business, support and management processes using Lean, 6 Sigma, TOC, and other contemporary process improvement methodologies. Students develop the ability to distinguish between traditional business management principles and implement contemporary Lean management principles by linking them with Key Performance Indicators (KPIs), identifying low-efficiency and loss causes, and making suggestions for improving efficiency and calculating the economic effect of suggested improvements and the reduction of costs, not at the expense of tax optimization, but with the implementation of a Lean system within the company.

In the integrated management system study course students develop the basic elements of the integrated management system in small groups of 2-3 students. Processes are identified for the organization selected for group work, characteristics of the organization's products / processes are identified, and processes are documented, including the requirements of all standards selected for integration. Environmental aspects are defined for products and processes, and work environment risk factors for one selected workplace. The group documents the policy, defines the goals and develops a program for achieving the goals. The developed documentation is compiled in the Integrated Management System Manual. Internal audit is performed using the role-play approach, while consistently following the audit implementation procedure. The audit team reviews the audited organisation's system documentation for compliance with the selected standards, asks audit questions and evaluates responses in audit interviews, and documents audit findings in an audit report. During the study course, students complete a full cycle of integrated management system design that follows the Deming Circle – “plan, do, check, act”.

Several factors together create a favourable **working and learning environment** that fosters the study quality, incl. linking the aforementioned study content with the labour market situation, positive trends in the quality management profession in Latvia and a wide range of job

opportunities, student participation in the study quality improvement, opportunity to be heard, receive various types of support, gain international experience, FEEM administration's positive attitude and willingness to constantly improve the content and methods of the studies and the provision of facilities, equipment and software in the time, volume and quality required for the studies.

Many resources are available to students outside the classrooms: RTU Scientific Library, scientific databases Web of Science, Scopus, and LVS Reading Room. The themes of master's theses are tailored to the students' professional interests and possibilities, their results contribute to the development of organizations. For more information, see Section 3 and the Study Direction Report.

A lot of resources are invested in promoting RTU students' **extracurricular activities** and healthy lifestyle. RTU offers students a number of extracurricular activities – from various artistic groups and interest clubs, such as the choir “Vivere”, orchestra “Bigbend”, folk dance ensemble “Vektors”, etc., to more than 20 kinds of sports where each student has an opportunity to be selected for the sports team of RTU. FEEM students most often join the choir “Vivere” and play in the women's basketball team.

The RTU Career Center very often hosts various seminars on personality development, education and global issues. FEEM students also attend these seminars. Knowledgeable professionals from different spheres whom otherwise a limited number of students would be able to hear due to the high entry fees deliver lectures. However, RTU offers these lectures to students free of charge. According to the students, this is an opportunity for students to talk to and ask questions to people whom otherwise they would not be able to meet in the next few years.

Each RTU faculty offers its students an opportunity to participate in the Student Council, which represents and defends students' interests, organizes various educational seminars, sports games and cultural events. This is a great place for students to learn how to develop communication and work skills. Whereas, if a student wishes to become a student representative not only at the level of their faculty, but also at the level of the entire university, they have the opportunity to become involved in the RTU Student Parliament.

There are 85 students in the FEEM Student Council, 12 of them are the students of the study program “Total Quality Management”. 2 of them are master students, 10 of them are bachelor students. Of the bachelor students, 5 are first-year students, 4 are second-year students and 1 is a third-year student. Almost all of them also take part in RTU extracurricular activities: two of them sing in the RTU choir “Vivere”, two students are active in RTU sports activities; one of them is in the RTU fans team. Students of the study program “Total Quality Management” are also very active in representing students and FEEM views at the level of RTU. Three students are members of the RTU Constitutional Assembly, two of them are members of the FEEM Council and one is an RTU Senator. For extracurricular activities, see also: Study Direction Report and RTU website <https://www.rtu.lv/en/studies/student-life>).

Representatives of all study programs are active in the FEEM Student Council. With each study year, students become more responsible for their future and, as a result, their collaboration with the student self-government becomes broader, not only in their studies but also in their extracurricular activities. Last year, a student who had received a special RTU-funded study place in sports (Frisbee) graduated from the professional master's study program “Total Quality Management”. Special support is provided to the RTU staff members who choose to study at RTU. The study program is highly estimated by the RTU staff. During the reporting period, 6 current RTU employees graduated from the program and the University funded their studies.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

The professional master's study program "Total Quality Management" envisages internship in one of the Latvian or foreign companies / organizations after completing the theoretical courses and passing the examinations. Until 1 July 2019, internship was carried out in accordance with the procedure approved by the RTU Senate on 29 March 2010 (Minutes No.539) and according to the methodology developed by the structural unit implementing the study program. At the moment there is a new document "Organization of Internship at Riga Technical University" approved by the RTU Senate on 28 January 2019 (Minutes No.626).

The aim of internship is to enable students to apply the theoretical knowledge acquired during their studies in practical work in a particular organization and to promote the cooperation of the higher education institution with organizations and find out their wishes in a particular field of study. The internship tasks of the study program are closely related to the learning outcomes of the study program.

The volume of internship is 6 CP for students with previously acquired professional higher education and 26 CP or 6 CP + 20 CP for students with previously acquired academic higher education. The student according to their interests and work experience chooses the location of internship. However, if necessary, the student is assisted by the Department of Quality Technologies or the RTU Career Center. Internship in this field is often offered by companies looking for employees, and also companies employing the study program graduates. The academic staff of the program closely cooperates with companies and alumni provide information about job offers: State Construction Control Bureau of Latvia, Consumer Protection Center, Forte Prefab Ltd, National Blood Donor Center, E.Gulbja Laboratory, Emergency Medical Service, Rimi Latvia Ltd, Tilts Ltd, RTU departments, Riga Social Service etc.

In accordance with the aim and tasks of internship, the main focus during internship is on the opportunity to use the theoretical knowledge acquired during the studies in a real work environment, to develop and improve skills to work in the field of quality management and / or conformity assessment. During internship, students prepare an internship report, where they summarize and analyse the results of the research and present them at the end of the internship.

During the internship, practical research is carried out based on theoretical research developed in the study projects "Quality Management" and "Conformity Assessment". The results of theoretical analysis and practical research in these study papers are then integrated into the master's theses, where students analyse and evaluate the results in depth and, through careful quality cost analysis, put them into practice in the company. In the study course of research methodology students are taught methods by which they can carry out research (Quality function deployment method, Importance-performance analysis). The conformity assessment course contains topics that can be developed during the internship and in the master's thesis.

To help students better understand the meaning and significance of internship in the study process, RTU has developed internship implementation procedures, and methodological guidelines and an internship program, which define the internship tasks and describe the internship procedure. The internship program integrates the knowledge and skills to be acquired according to the professional

standard, as well as guidance on how research conducted during internship should be summarized in the internship report. In addition, there are "Formatting and Study Guidelines for Study and Graduate Papers" that help students to appropriately write and format the study papers, incl. the internship report. According to the methodology, the tasks and procedure of the internship are explained at the first meeting with students that takes place 4 months before internship.

References and evaluations of employers and internship supervisors in organizations show that the students' knowledge, practical abilities and skills meet the professional requirements set by the professional standard.

Internships are in general rated positively – from 7 (good) to 10 (with distinction). The evaluation of the students' knowledge and work given by internship supervisors and employers is as follows: *"...students are purposeful, conscientious during their internship, and are able to implement innovative solutions to identify and solve the company problems. The students are able to quickly get involved in the work of the company team and individual groups, and carry out the assigned duties with a high degree of responsibility. They demonstrate ability to apply the acquired theoretical knowledge in a real work environment. The work entrusted is performed within the prescribed time limits. Students are not afraid of new challenges. They have very good IT skills regarding commonly used software..."*

Some students' knowledge was assessed as satisfactory, but their attitude towards the assigned duties and their desire to develop in the chosen profession were evaluated positively.

In the period from the 2013/2014 until the 2018/2019 academic year, students of the professional master's study program "Total Quality Management" have had internship in 80 different Latvian and international organizations (see Study Direction Appendix "Internship Companies").

The study program management regularly updates the internship program and tasks in close cooperation with employers and internship supervisors in companies, as well as in line with the latest developments in the fields of quality management and conformity assessment. Each student prepares an individual program for the internship in cooperation with both the coordinator and the internship supervisor.

Some of the initiatives started during the internship and master's thesis have been transformed into new quality: following the suggestions developed by the students, RTU is currently conducting quality assessment according to the requirements of EFQM.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

The studies in the program end with the State Examination, which includes the elaboration and defence of the master's theses. The master's thesis reflects the results of the author's original work. The topics of the final theses elaborated in the study program correspond to the topicalities of the industry, the situation in the labour market and the trends in scientific development. The master's thesis is a serious research, which is developed according to the topic chosen by the student, dealing with current problems in quality management. It must be topical at the level of the organization, industry or methodology up to the time of defence. The master's thesis is publicly defended with the State Examination Commission. The commission operates in accordance with the regulations approved by the RTU Senate; according to the requirements, the commission includes,

as the majority, representatives of the labour market.

The master's theses and their defence in the professional master's study program "Total Quality Management" demonstrate the students':

- theoretical knowledge, understanding of the concepts and methodology and ability to orientate in the chosen field of research, ability to apply theoretical knowledge in practice;
- ability to acquire, compile, process and analyse data and to use various quality management methods and tools to solve the problem in an original way, as well as to use analytical reasoning and critical thinking;
- professional competence in areas related to quality management and / or conformity assessment;
- understanding of the important and topical aspects of quality management and / or conformity assessment functions and the interaction between integrated management systems and the various systems of the organization;
- ability to solve the organization's quality management problems and implement improvements in the organization's operations, as well as offer logical and substantiated solutions to the identified problem based on in-depth knowledge of quality and process management;
- systematic and logical approach to the development of the master's thesis, ability to use appropriate information sources and available information processing technologies;
- ability to make reasoned conclusions, prepare realistic and valid proposals, present them, and justify their personal professional opinion.

The master's thesis is usually developed in one of the thematic groups according to the student's choice: Quality Policy, Strategy and Management, Process Approach and Its Improvement, Conformity Assessment and Risk Management, Product Quality and Customer Experience Management. Aspects of an integrated management system are an indispensable component of all Master's theses.

The master's thesis usually consists of three parts. The task of the theoretical part is to provide the theoretical basis for the solution of the topic of the master's thesis, the evaluation of scientific publications, materials and literature. The theoretical part explores the opinions of various authors, and the author of the master's thesis compares and evaluates different theoretical concepts and gives their own opinion and evaluation. The task of the analytical or research part is to collect and analyse information, to reflect the author's research, to identify and explain the problems to be solved. The practical or solution part of the master's thesis contains justification of problem solutions and alternatives, selection of the best alternatives and giving the proof of their effectiveness, which is shown by concrete facts and calculations. In this part the author develops quality improvement suggestions to address the problems identified in the analysis, explains how the chosen solutions will be implemented and describes the results obtained, substantiating them with calculations or technological solutions.

Master students, who are matriculated with a previously acquired Bachelor's Degree and who study in the 100 CP version, according to the requirements of the study program, develop an additional practical solution or project part. The project part of the master's thesis covers the study and systematisation of implementation possibilities of modern effective management methods and unified quality management systems in different spheres of the company's activities, as well as the analysis, research and development of effective quality methodologies at national, regional and international levels.

Students present research papers at student conferences. Participation in the RTU Student Scientific Conference for the master's level students is a mandatory part of their studies, for

example,

1. In the 2012/2013 academic year, 11 students participated in the 54th RTU Student Scientific and Technical Conference with the topics: "Application of LEAN principles for increasing the supply chain efficiency of the company "Warehouse of goods"", "Improvement of study programs at Riga Technical University", as well as 5 topics on quality system improvement and 4 topics on process improvement.
2. In the 2013/2014 academic year, 12 students participated in the 55th RTU Student Scientific and Technical Conference with the topics: "Improvement of Quality Management System at the Fire Safety and Civil Defence College", "Optimization of the Production Material Flow in JSC 'SAF Tehnika'", "Improvement of Market Surveillance of Taxi Service in Latvia", "Development of Quality Management System in 'Inplastec Technology' Ltd.", "Improvement of Non-Destructive Testing Service Quality in JSC 'Inspecta Latvia'", "Improvement of Customer Service Processes in a Bank", "Corporate Social Responsibility Aspects for Developing an Organization's Quality Policy and Ensuring Sustainability", "Organizational Culture in the Process of Formation of a University's Quality Management System", "Improvement of Procurement Processes in JSC 'Sadales tīkls'", "Improvement of Basic Processes of the Food and Veterinary Service", "Improvement of Production Process in Ltd 'Īve AG'", "LEAN or waste less approach".
3. In the 2014/2015 academic year, 56 students participated in the 56th RTU Student Scientific and Technical Conference, presenting their research results in various important fields of management: health care "Determination of quality measurements and indicators at State Ltd Children's Clinical University Hospital"; risk assessment laboratories "Risk management in the laboratories of the Scientific Institute of Food Safety, Animal Health and the Environment BIOR"; development of integrated systems in the construction industry "Development of integrated management system in 'Rīga rent' Ltd."; improvement of product quality in the food sector "Improvement of evaluation and management of non-compliant products in Ltd Rīgas piensaimnieks", "Improvement of food safety in JSC 'Rīgas piena kombināts'", logistics "Improvement of Logistics Process at 'Balt Wood Enterprise' Ou".
4. In the 2015/2016 academic year, 14 students participated in the 57th RTU Student Scientific and Technical Conference, presenting their research on the improvement of quality management systems and process management in service and manufacturing companies. Examples include topics such as: "Improvement of Passenger Service System at Riga International Airport", "Process Improvement at 'ACE Logistics Latvia' Ltd.", "Assessment of Process Certification for Energy Builders", "Development of Risk Management in a Reinforced Concrete Construction Company", "Improvement of Birch Wood Plywood Production Process in the Factory 'Furniers'".
5. In the 2016/2017 academic year, 15 students participated in the 58th RTU Student Scientific and Technical Conference, presenting their research on quality management, process improvement, risk management and increasing customer satisfaction in companies of various fields. Examples are: "Improvement of Customer Satisfaction in JSC SEB bank", "Improvement of Maintenance and Service Processes in JSC 'Delta LV'", "Risk Management in Riga Social Service", "Improvement of Quality System in Metal Constructions Manufacturing Company", "Risk Analysis in the Certification Process of Energy Builders", "Improvement of Quality Control Process in JSC 'Grindeks'".
6. In the 2017/2018 academic year, 10 students participated in the 59th RTU Student Scientific and Technical Conference, presenting the results of their research on quality management, process improvement, risk management and increasing customer satisfaction in companies of various fields. Examples include such topics as: "Quality Management Strategy at the State Ltd "Latvian Environment, Geology and Meteorology Centre", "Quality Management

Strategy at a Security Service Company”, “Process Approach to the Quality System Development at ‘TOPO DATI’ Ltd”, “Process Approach to Ensure University Quality System Sustainability”, “Production Process Quality Management Strategy at ZVZ Ltd.”, “Process Approach to the Quality System Development in the Administrative Department of a State Institution”.

7. In the 2018/2019 academic year, 11 students participated in the 60th RTU Student Scientific and Technical Conference, presenting their research results in quality management, process improvement, risk management, standardization, increasing customer satisfaction in companies of various fields. Examples include topics such as: “Quality Management and Risk Management in KEEFA Ltd”, “Improvement of Patient Safety System in State Ltd “Children’s Clinical University Hospital”, “Improvement and Development Scenarios of Higher Education Quality Assessment System in Latvia”, “Control System Development for Implementation of the Strategy of ‘Latvijas standarts’ Ltd”, “Process Approach to Quality System Development at the National Blood Donor Center”, “Improvement of the Integrated Quality Management System in the Testing Laboratory”, “Improvement of the Internal Control System in the State Construction Control Bureau of Latvia”.

During the reporting period, from 2013/2014 to 2018/2019, grades for master’s theses were not lower than 7, except for one student who received a grade of 6 (almost good) (see Figure “Assessment of students` graduation papers”).

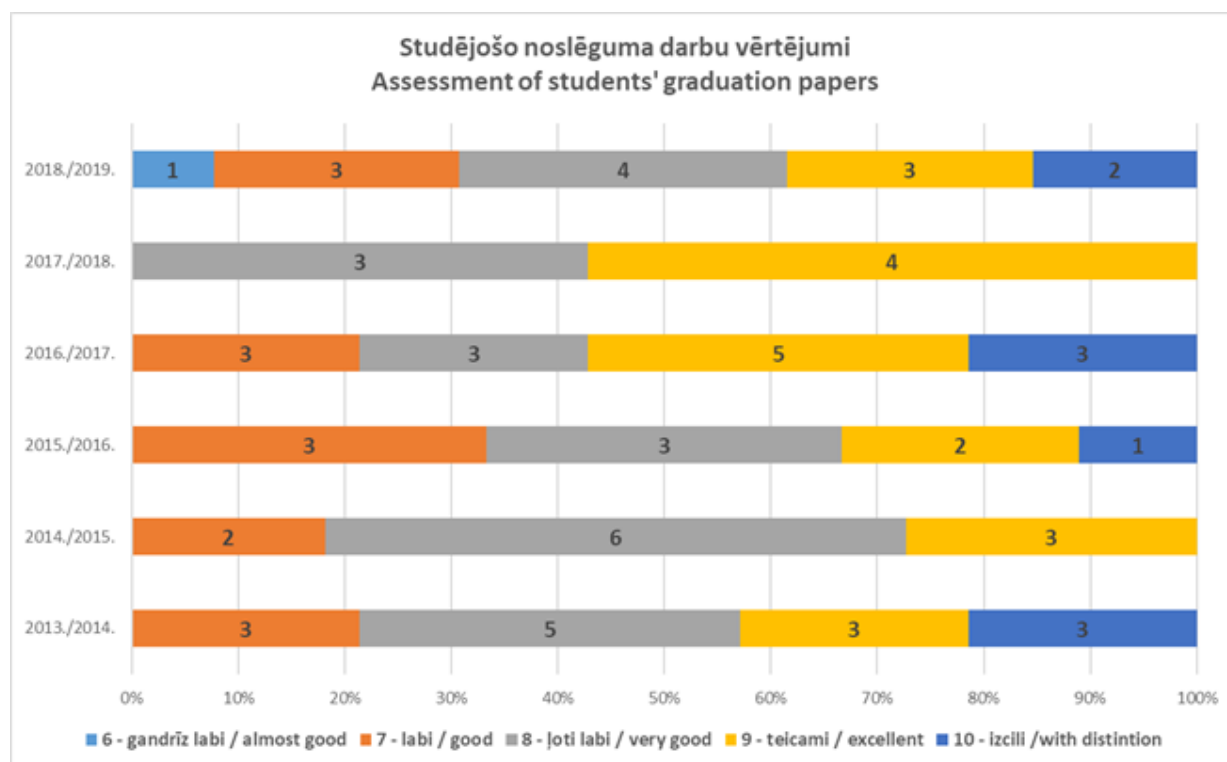


Figure “Assessment of students` graduation papers

Grade 10 (with distinction) is awarded by the State Examination Commission only to students who in their work have carried out research outside the program requirements or whose research results have turned into a scientific publication, or have been highly evaluated by the company. During the reporting period, 10 final theses were evaluated with 10 (with distinction) as the research results were successfully implemented in various companies and institutions: “Improvement of Customer Service Process in the Bank” (2014), “Aspects of Corporate Social Responsibility for Improvement of Quality Policy and Sustainability of Organization” (2014), “Organizational Culture in the Quality Management System Development Process at University” (2014), “Risk Management in the Reinforced Concrete Structures Production Company” (2016), “Improvement of Customer Service



Quality in the Bank" (2017), "Risk Analysis in the Certification Process of Energy Builders" (2017), "Increase of Customer Satisfaction in the Latvian Branch of an International Bank" (2017), "Improvement of Quality Control Process in JSC 'Grindeks'" (2018), "Improvement and Development Scenarios of Higher Education Quality Assessment System in Latvia" (2019), "Control System Development for Implementation of the Strategy of 'Latvijas standarts' Ltd" (2019).

During the development of master's theses (once a month), interim examination of master's theses is organized in which students present the progress of their research. A Master's thesis supervision commission composed of the program director, methodological consultant and leading academic staff including representatives with the industry experience assesses student performance. If during the final testing (preliminary defence) of master's theses the commission sees that a student has not fulfilled the requirements corresponding to the level of the master's thesis, the student shall not be allowed to defend their master's thesis. In this case, with the approval of the study program director and the commission, the student is given the opportunity to improve their performance and defend their work at the end of the next semester. Two months before the defence of the theses, these students are given the opportunity to present the improved thesis, which is evaluated by the commission that decides whether it can be defended with the State Examination Commission.

JSC "Latvijas balzams" in cooperation with RTU Development Fund in the 2013/2014 academic year announced a scholarship competition for final theses in order to increase the quality and practical applicability of students' final theses in the food industry and company management. This scholarship was awarded to the program student Santa Strode. Her master's thesis was on "Assessment of the Impact on Environment and Risks in JSC "Latvijas balzams"". In the 2014/2015 academic year, the student continued her work and developed a project "Assessment of the Impact on Environment and Risks in JSC "Latvijas balzams"". The article developed on its basis has been included in the Scopus, Web of Science, ScienceDirect and EBSCO databases: Mežinska, I., Strode, S. Emerging Horizons of Environmental Management in Food Sector Companies. *Procedia - Social and Behavioral Sciences*, 2015, Vol.213.

A number of master's theses have been turned into publications.

In the 2014/2015 academic year four of the defended master's theses evolved into publications included in Scopus, Web of Science, ScienceDirect and EBSCO databases:

- Frolova, I., Lapiņa, I. Integration of CSR Principles in Quality Management. *International Journal of Quality and Service Sciences*, 2015, Vol.7, Issue 2-3, pp.260-273.
- Frolova, I., Lapiņa, I. Corporate Social Responsibility in the Framework of Quality Management. *Procedia - Social and Behavioral Sciences*, 2014, Vol.156, pp.178-182.
- Lapiņa, I., Aramina, D., Kairiša, I. Influence of Organizational Culture on the Continuous Improvement: Empirical Study at University. *Proceedings of the 19th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2015)*. Vol.1, USA, Orlando, 12-15 July 2015, pp.76-81.
- Lapiņa, I., Kairiša, I., Aramina, D. Role of Organizational Culture in the Quality Management of University. *Procedia - Social and Behavioral Sciences*, 2015, Vol.213, pp. 770-774.

In the 2016/2017 academic year:

- Kavosa, M., Lapiņa, I., Briņķis, K. The Evaluation of Certification in the Field of Energy Construction in Latvia. From: *Proceedings of the 19th QMOD-ICQSS International Conference on Quality and Service Sciences*, Italy, Rome, 21-23 September 2016. Lund: Lund University Library Press, 2016, pp.972-988.
- Kavosa, M., Lapiņa, I. Certification of Persons: an Important Conformity Assessment Procedure. From: *Smart and Efficient Economy: Preparation for the Future Innovative*

Economy: 21st International Scientific Conference Economics and Management (ICEM 2016): Proceedings of Selected Papers, the Czech Republic, Brno, 19-20 May, 2016. Brno: Brno University of Technology, 2016, pp.294-300.

In the 2017/2018 academic year:

- Kavosa, M., Lapiņa, I. Risk Analysis in Certification Process in the Field of Energy Construction: Case in Latvia. *Total Quality Management & Business Excellence*, 2018, No.1, pp.1129-1142.
- Medne, A., Lapiņa, I. EFQM Excellence Model towards Sustainability of University's Quality System. 21st QMOD-ICQSS Conference "The Quality Movement – where are we going? Past, Present, and Future": Proceedings, UK, Cardiff, 22-24 August 2018. Lund: Lund University Library Press, 2018, pp. 433-441.

In the 2018/2019 academic year:

- Pīlēna, A., Kavosa, M. A Control System for Strategy Implementation: A Case of a National Standardization Body. From: Proceedings of the 23rd World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2019). Vol.3, USA, Orlando, 6-9 July 2019. Winter Garden, Florida: International Institute of Informatics and Systemics (IIIS), 2019, pp.25-30.

The master's theses developed are topical in every company; students prepare practical solutions to improve the company's performance. It is necessary to mention the students who, while being employed at RTU, have developed practical solutions for improvements at Riga Technical University "Organizational Culture in the Quality Management System Development Process at University", "Procurement Process Improvement for the Ensuring of University Strategy Implementation", and "Process Approach for Sustainability of University Quality System".

Three important theses have been developed in the field of quality assurance of the education system of Latvia. These are "Quality Management Strategy in the Vocational Education Competence Centre", "Development of Higher Education Quality Evaluation System and Possible Scenarios in Latvia" and "Quality Assessment Strategy of General Education Institutions in Latvia".

The results of the students' knowledge assessment at the final examination are discussed twice a year at the KTK meeting. The results are also summarized and evaluated by the program administration and serve as a basis for further improvement of the study process.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

The results of student, employer and graduate surveys are used to improve the quality of the study program. The study quality monitoring and implementation system introduced by RTU in 2008 envisages regular electronic surveys of students on the content of studies and the quality of the academic staff through the ORTUS environment. Student surveys are conducted every year after the autumn and spring semesters. The surveys include questions about the availability of study literature for each particular course, the teacher's criteria for student assessment, work culture and quality, respect for student rights during classes, time spent on student independent work and class discipline. The final part of the questionnaire is intended for students' suggestions and recommendations for the improvement of the course and the teacher's work quality.

Questionnaires are filled in anonymously so that the answers given do not influence the attitude of the teacher to the particular student or group of students and the target of obtaining an objective evaluation of students is achieved.

The results of the survey on the particular program are analysed and used to improve the quality of the study program. The students themselves and the FEEM Student Council are actively involved in the processes of surveying and result analysis. The student questionnaires are designed so that the students' answers help to evaluate the quality of the study courses and the academic staff, and also give the students an opportunity to express their opinion and make suggestions for improvement of the teacher's work and development of the course curriculum. For example, the results of the student survey in the 2014/2015 academic year, spring semester showed that there was a problem of some topics overlapping in the study courses. To eliminate this, the course descriptions have been revised in the methodological seminars of the teachers, and appropriate changes were made to the study program as described in Section 2.1.

In order to enhance student involvement in the study program quality improvement, as well as to bring the content of the study program closer to the requirements of the labour market and the expectations of society, a research was conducted from 2015 to 2019. The experimental study used the **Quality Function Deployment method** to determine what improvements were necessary. During the research, it was evaluated to what extent the aims of the study program are achieved, incl. the learning outcomes, whether the content of the study program corresponds to the findings of the latest research, what is the competence of the academic staff, what are the expectations, needs and satisfaction of the students, and whether the study environment and support services correspond to the aims of the study program. In accordance with the results of the research and the requirements of the labour market, "Risk Analysis" and "Quality Cost and Resource Analysis" were transferred to Part A, a course "Contemporary Research Methods in Quality Management" was introduced and the number of credits in the course "Social Responsibility and Business Ethics" was increased.

In general, the results of the student surveys on the work of the academic staff have been very positive, as from the maximum possible 5.0 points the average was above 4.0, in most cases it was above 4.4. After RTU changed the evaluation of the academic staff to the scale of 100%, in the 2018/2019 academic year, in the spring semester, the academic staff members of the Department of Quality Technologies was evaluated. Analysing the submitted student questionnaires, the following results were obtained: two of the teachers received positive student ratings within the range of 78-83%, while five of the teachers received positive student ratings within the range of 87-94%. The professional and academic competence of the visiting teachers was also evaluated, with three out of four teachers receiving positive student ratings within the range of 75-82% and one visiting teacher received 90% positive assessment.

It can be concluded that students' assessment rates are high overall. The permanent academic staff members of the department have a higher student satisfaction rating. Student comments indicate that the work of the academic staff is adequate and there have been no student complaints in the 2017/2018 or the 2018/2019 academic years. The last mediocre grade was given in 2016 to one of the visiting teachers of the program, who was replaced by another teacher.

Consequently, it was discovered that, when possible, it is necessary to plan activities for the development of pedagogical competence also for visiting teachers.

Students have highly valued the teachers who prepare their own teaching materials and / or handouts for the study courses. The main recommendations for the improvement of the study program from the students' point of view are to bring the contents of the lectures closer to the actual situation and developments, and to increase the number of study literature. The results of

the students' questionnaires are analysed at the meetings of the study program administration, departments and institutes, involving, if necessary, representatives of the student self-government.

The student self-government regularly conducts student surveys on the quality of the study process, the quality of the academic staff and other issues related to the organization of the study process. The student self-government questionnaires and their samples are available in the RTU FEEM student self-government office.

Every year a survey of program graduates is also conducted. The results of the surveys reflect the positive and negative aspects of the program implementation. The study program, its content, internship and knowledge acquired are evaluated.

In 2013, when the annual survey of graduates was carried out, 80% of the questionnaires were filled in (13 out of 15 graduates), in 2014 – 75% of the questionnaires (9 of 12 graduates), in 2015 – 45% of the questionnaires (5 of 11 graduates), in 2016 – 44% of the questionnaires (4 of 9 graduates), in 2017 – 71% of the questionnaires (10 of 14 graduates), in 2018 – 88% of the questionnaires (7 of 8 graduates), in 2019 – 77% of the questionnaires (10 of 13 graduates) (see “Appendix 5 Figure: Results of the Graduate Survey”).

Throughout the reporting period, students have positively evaluated the acquired theoretical and practical skills. In the recommendations for improvement of the program during the 6 years the students mentioned:

- the need for more hands-on activities, real-world case studies;
- during the studies, students should have more preparation for writing their master's theses;
- more lectures on quality costs and risk management;
- to organize student mentoring, for example: in the initial phase of developing a master's thesis, PhD students should be invited to share their experience in research, in writing a master's thesis, in the use of research methods, etc. This would provide useful insights to master students, as well as establish new contacts and attract potential students to doctoral studies at RTU;
- more information on how to write the final thesis;
- an opportunity to participate in the defence of the master's theses of the 2nd year students.

**All the aforementioned suggestions have been implemented and included in the study process;** the changes made are also described in Section 2.1. Based on the results of the survey of the graduates of the study program and the recommendations of the students, a new activity was introduced – the 1st year master students participate in the 2nd year master students' presentation of their master's theses in the second half of the spring semester. There have also been changes in study courses. For example, in the course “Quality Cost and Resource Analysis”, students expressed their wish to intensify the analysis of the risks associated with quality loss within the topic of quality cost.

It has not been possible to implement only two proposals:

- attendance should not be taken into account when giving the final grade, as students are employed. This suggestion has been implemented partly because of the importance of student work during classes, which is an important aspect. The criterion that a student is just present in classes is not normally used in aggregate evaluation.
- internship should be included in the study process as early as the first year. This suggestion was not supported by the students when they were asked about it, as the first year students do not yet have sufficient theoretical knowledge to complete the internship tasks.

The comments section of the questionnaires contains positive aspects, such as:

- all necessary information was communicated to students in a timely manner;
- if there was any uncertainty, the office manager of the institute was available;
- invitations to various seminars and open lectures were mentioned as a plus.

The question “How would you describe your university time in general?” received a comment: Very positive. Theoretical and practical knowledge was gained, interesting student events attended and useful contacts made.

According to the results of the survey of 2019, the aspect that needs more attention is the premises where the lectures take place. This issue was solved because in the summer of 2019 the location of the study program changed from 1/1 Meža Street to 6 Kalnciema Street.

The evaluation of the program, the study process, the acquired knowledge and practical skills showed that students highly appreciate all the improvements of the study process and its content as a result of the information obtained from the surveys of the previous study years. The satisfaction rates of the last year graduates improved significantly. (see “Appendix 5 Figure: Results of the Graduate Survey”).

## **2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.**

The study program provides both incoming and outgoing mobility opportunities. To promote mobility, the RTU International Mobility Unit and the RTU Student Parliament organize information events on the mobility program in September and February. There the issues of scholarship competitions and other aspects to consider when planning mobility are explained in detail. Students are also supported by the office manager of the program, who introduces them with the planned study courses and advises on the choice of the most suitable university.

Students share their experiences of mobility in the FEEM student self-government events and are encouraged to motivate others who have not yet tried mobility to use this opportunity. They tell them about the benefits, experiences in intercultural communication not available in your own country, about new learning and assessment experiences. At such events, students are happy to ask questions about extracurricular activities and daily life abroad.

**The courses acquired during mobility are fully recognized** – it is ensured by being careful in choosing a foreign university, study program and courses to study in collaboration with the program director and the office manager of the institute.

Students have wide opportunities to improve their knowledge at foreign universities within the framework of the ERASMUS mobility program. At the master’s level, only a few students have used these opportunities because all of the master students are employed.

For example, in 2012, a student took the opportunity to participate in an ERASMUS exchange program at the University of Nicosia, Cyprus, where she studied such subjects as “Process and Quality Management”, “Business Ethics”, “Decision Taking Methods and Tools”, and “Financial and Management Accounting”. Another student studied under the ERASMUS exchange program at Chalmers University of Technology in Sweden. She studied “Research Methodology”, “Risk Management and Safety” and “Intellectual Property and Innovation Strategies”.

In the spring semester of the 2016/2017 academic year, a student studied “Strategic

Management”, “Audit”, “Financial Modelling”, and “Business Decision Taking” at the University of Split (Croatia). Students are successful in choosing higher education institutions with similar study courses as in the professional master’s study program “Total Quality Management”, thus having no problems with the recognition of study courses.

Special attention is paid to internship. During internship, students acquire practical work skills according to the chosen specialization. In the 2013/2014 academic year, a 2nd year student did her internship in the organization “United Nations Volunteers” in Germany, developing her master’s thesis on “Aspects of Corporate Social Responsibility for Improvement of Quality Policy and Sustainability of Organization” and she received grade 10 (with distinction). In the 2015/2016 academic year, one student’s internship was at the international company and the obtained information and knowledge was used by the student in writing her master’s thesis “Improvement of Process Management in the International Service Company”. In the 2018/2019 academic year, one student completed her internship at “Aeroflot Russian Airlines” in London, and wrote her master’s thesis on “Customer Service Quality Evaluation and Improvement in the Airline ‘Aeroflot Russian Airlines’”. (See Study direction report. Compulsory Appendix: Statistical data of students’ mobility”)

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

Full information on these issues is provided in the Study Direction Report, Part II, Section 3, Criteria 3.1 to 3.3. This paragraph contains only additional separately highlighted information about the study program.

**RTU has a decentralized budget**, so each university unit has its own budget. A budget in general is a plan of revenue and expenditure for a specific period of time, work, event or function. The revenue and expenditure of RTU are administered in accordance with principles approved by the Senate or with the powers granted by Vice-Rector for Finance. Revenue may be divided into means allocated to the university unit for carrying out certain tasks for which it is responsible, such as consultancy services or organization of training, and means allocated to the unit as a result of calculations based on expected workload and / or performance indicators of previous periods (e.g., scientific support). RTU provides each head of unit with remote access to operational financial information on the unit’s budget, including planned workload and funding to be allocated in subsequent periods for the implementation of the study programs and courses. The head of the unit plans the work of the unit at the beginning of each financial or budget year, including salaries for the academic staff who are subordinates to the particular head of the unit, and develops a procurement plan for the following year appropriate to the operation and development of the study program or course, etc.

The source of funding for the professional master's study program "Total Quality Management" is both from the state budget and from the tuition fees of students. Initially, the program had 17 state funded places, but starting with student enrolment in 2017, the number of state funded places at RTU was reduced overall, incl. in this study program. Currently, the program has **14 state funded places**. In some years, the number of state funded places may be higher, as the program has had students who receive RTU support for their achievements in sports.

The tuition fee has changed during the reporting period:

- In the autumn semester of the 2013/2014 academic year, the full-time tuition fee was Ls 1190.00 per year and the part-time tuition fee was Ls 960.00 per year.
- In the spring semester of the 2013/2014 academic year, the full-time tuition fee was EUR 1693.22 per year and the part-time tuition fee was EUR 1365.96 per year.
- For the 2014/2015 academic year, the full-time tuition fee was EUR 1860.00 per year and the part-time tuition fee was EUR 1300.00 per year.
- For the 2015/2016 and the 2016/2017 academic years, the full-time tuition fee was EUR 1860.00 per year and the part-time tuition fee was EUR 1490.00 per year.
- For the 2017/2018 academic year, the full-time tuition fee was EUR 1900.00 per year and the part-time tuition fee was EUR 1520.00 per year.
- For the 2018/2019 academic year the full-time tuition fee was EUR 2000.00 per year and the part-time tuition fee was EUR 1520.00 per year.
- For the 2018/2019 academic year the full-time tuition fee was EUR 2000.00 per year and the part-time tuition fee was EUR 1520.00 per year.
- For the 2019/2020 academic year the full-time tuition fee is EUR 2050.00 per year and the part-time tuition fee is EUR 1640.00 per year.

Data regarding the amount and dynamics of the study program funding see in the Annex 5 "Statistical data", figure and table "Study program funding".

The common study, science, informative (including library), material-technical and financial basis of FEEM and especially of the Department of Quality Technologies creates preconditions for the achievement of learning outcomes and indicates the possibility of ensuring a high quality study process in the future. For effective implementation of the study program, classrooms equipped with the latest generation of visual and audio equipment, which corresponds to the specifics of the study program and the conditions of its implementation, are available to the academic staff and students. Funding for one study place has increased in recent years.

In the period 2013-2019, for the bachelor's and master's study programs "Total Quality Management", the Department of Quality Technologies has purchased 4 new generation processors and two projectors to be used in the study process.

At the RTU **library** students have access to professional study literature, which is updated every year. During the reporting period, the following books were purchased specifically for the program, in addition to other library resources:

- Bergman, B., Klefsjo, B. "Quality, From Customer Needs to Customer Satisfaction" (15 copies),
- Douglas, C. Wood "Principles of Quality Costs" (15 copies),
- Babris, S., Kaļķis, H. et al. "Lean risinājumi efektīvākam biznesam" (Lean solutions for more efficient business) (10 copies),
- Thomas, S. Foster, Scott, E. Sampson, Scott, W. Webb "Managing Supply Chain and Operations: An Integrative Approach" (2 copies),
- Matthew, A. Barsalou "Root Cause Analysis: A Step-by-Step Guide to Using the Right Tool at

- the Right Time" (1 copy),
- John, S. Mithshell "Operational Excellence: Journey to Creating Sustainable Value" (1 copy),
- James, W. Martin "Lean Six Sigma for Supply Chain Management: The 1-Step Solution Process" (2 copies),
- Latvijas Kvalitātes biedrība "EFQM izcilības modelis" (Latvian Quality Society "EFQM Excellence Model") (5 copies).

Besides, in the department, the following books are available to students and academic staff:

- Bergman, B., Klefsjo, B. "Quality, From Customer Needs to Customer Satisfaction" (10 copies),
- Thomas Foster, S. "Managing Quality. Integrating the Supply Chain" (1 copy),
- Juran Joseph, M. "Jurans Quality Handbook" (1 copy),
- Allen Theodore, T. "Introduction to Engineering Statistics and Six Sigma" (1 copy),
- Forrest, W. "Implementing Six Sigma" (1 copy),
- Jay, A. "Lean Six Sigma" (1 copy),
- Babris, S., Kalķis, H. et al. "Lean risinājumi efektīvākam biznesam" (Lean solutions for more efficient business) (3 copies),
- Caune, J., Dziedons, A. "Stratēģiskā vadīšana" (Strategic management) (5 copies),
- Hoff, K. G. "Biznesa ekonomika" (Business economics) (5 copies).

International databases are available to students on ORTUS: Web of Science, EBSCO, SCOPUS, SCIENCE DIRECT, SpringerLink full text journals and books, several databases and other information resources. The "**Latvia's Standards Database**" is available to students at the RTU Library. Students also have access to the state-of-the-art professional **magazine "Quality Progress"**, both in print and in electronic form, which has been received monthly from the American Society for Quality (ASQ) for several years.

FEEM has two computer classes **equipped with Minitab software**. The students of the program "Total Quality Management" in these classrooms are studying practical classes within the courses "CAQ Computer Aided Quality Control" and "Quality Management".

FEEM has a Bloomberg laboratory with a very extensive database. It covers all global financial data, data about companies, securities, transactions, marketing activities and various taxes. Students have access to extensive real-time databases, research and analytical tools. The laboratory has 12 terminals that can be used by all RTU students and researchers. The students of the program have separate classes of the course "Quality Cost and Resource Analysis" there.

The RTU Design Factory has "theLAB", a workshop open to students, where they can materialize their inventions using the technological capabilities of 3D printing, laser cutting and engraving, plotting, large-format printing, and more. Meanwhile, FEEM has set up a Student Creative Laboratory where students can use the latest technologies to design their products. It is an opportunity for students to work and apply the acquired theoretical knowledge in practice. In the lab, students have access to a variety of tools, a 3D printer, and materials. There are workstations where students can turn their ideas into prototypes, or at least create workpieces. Later these can be developed further – in the RTU Design Factory. Students of the program have the opportunity to work in the FEEM Student Creative Laboratory and the RTU Design Factory within the framework of the study course "New Product and Process Development Methodology", to implement their ideas.

Students also have access to the study environment of other RTU faculties, for example, an accredited metrology laboratory is set up at RTU Faculty of Mechanical Engineering, Transport and Aeronautics, which students attend as part of the course "Conformity Assessment".

As already mentioned, the overall assessment of resources is reflected in the information provided



in the Study direction report Part II, Section 3, Criteria 3.1 to 3.3.

### **3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

## **III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)**

### **4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

Overall assessment of the academic staff is shown in the information provided in the Study Direction Report, Part II, Chapter 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. This section will highlight changes in the academic staff involved in the program and their competence in teaching specific courses.

Currently, the academic staff members elected by the Institute for Quality Engineering (RKI) and the Department of Quality Technologies (KTK) that are involved in the implementation of the study program are: Professor Dr.oec. Inga Lapiņa (the study program director), Professor Dr.sc.ing. Jānis Mazais, assistant professor Dr.sc.ing. Iveta Mežinska, assistant professor Dr.oec. Anita Straujuma, assistant professor Mg.oec. Jolanta Janauska, doctoral students and researchers Maija Kavosa and Irina Degtjarjova and researcher Ināra Dimpere. During the reporting period there has been a positive trend in the study program – there is an increase in the number of academic staff with a PhD and the number of academic staff studying at the doctoral level.

Academic staff members elected by other RTU departments are also involved: Professor Dr.oec. Elīna Gaile-Sarkane, assistant professor Dr.oec. Rita Greitāne, lead researcher Dr.oec. Nadežda Semjonova, associate professor Dr.math. Nataļja Budkina, assistant professor M.sc.edu. Līga Kamola, assistant professor M.sc.ing. Guntis Tribis. Several high-level professionals are involved as visiting teachers in the study process: Vita Brakovska, Laila Keisele, Jānis Pildavs and Armands Ploriņš under the supervision of the responsible teacher. During the reporting period, individual courses, guest lectures and / or final papers were conducted, supervised or reviewed by: Andris Balodis, Jānis Černajs, Iveta Daugule, Baiba Drēgere-Vaivode, Guna Eglīte, Ginta Grandāne, Tatjana Ņikitina, Mārtiņš Ozoliņš, Ingars Pilmanis, Liāna Salzemniece, Maira Sapata, and others.

The study program includes courses in which there were no changes of the academic staff during the reporting period from the 2013/2014 to the 2019/2020 academic year, as well as courses where staff changes have taken place.

During the reporting period, the course “Integrated Management Systems” was implemented by assistant professor Dr.sc.ing. Iveta Mežinska, who is also the technical manager and lead auditor of “Bureau Veritas Latvia”.

The course “Contemporary Research Methods in Quality Management – 4 CP” (“Research

Methodology – 2 CP” until 2018) was implemented by assistant professor M.sc.edu. Līga Kamola. The teacher has a Master’s Degree in education science and more than 10 years’ experience teaching the course. During her doctoral studies, she has been constantly improving her knowledge and the study course by promoting students’ knowledge and understanding of research methods and methods, data collection, analysis, evaluation and analysis of professional literature and scholarly articles, and the ability to combine quantitative and qualitative research methods.

During the reporting period, the course “Risk Analysis” was implemented by assistant professor M.sc.ing. Guntis Tribis, who also works as an expert in risk assessment and management. The acquired knowledge and more than 20 years of practical experience are passed on to the students during the course, and enable continuous improvement of the course content with real examples and proven methods of risk analysis and management.

The course “Quality Management” was implemented by two teachers: from the 2013/2014 to the 2016/2017 academic year it was Professor Dr.sc.ing. Jānis Mazais, but from the 2017/2018 academic year to date, Armands Ploriņš, technical expert of “Det Norske Veritas Latvia”. The change of teachers in this study course took place due to the increase of Professor Jānis Mazais’ academic workload with RTU foreign students, but at the same time, he is still the responsible teacher of the course, which ensures the improvement of the course content and methodology. Taking into consideration A.Ploriņš’ more than 20 years of practical experience in quality management, the change of the academic staff allowed to maintain the quality of studies and also ensured addition of more real-life practice examples to the study course content.

The course “Quality Management (Study Project)” was implemented by Professor Dr.sc.ing. Jānis Mazais. Professor J. Mazais is a leading professor in the department as well as a professional with more than 25 years of experience in quality management and academic work, who passes on his knowledge and practical experience to students within the framework of a research study course. Starting from the 2019/2020 academic year, M.sc.soc. Irina Degtjarjova, doctoral student and researcher, participates in the implementation of the course.

The course “Quality Cost and Resource Analysis” was initially implemented by assistant professor Mg.oec. Svetlana Štāle. Due to the increase of S. Štāle’s academic workload at RTU Liepāja affiliation, starting from 2017/2018, the course has been implemented by assistant professor Dr.oec. Nadežda Semjonova, who is also responsible for the course. As a result of the change of teachers, the content of the study course was improved, because N.Semjonova has profound knowledge and significant professional experience in the field of finance, she participates in professional development events and provides students with current information in the respective study course.

The course “Process Analysis and Management” in 2011 was developed by assistant professor Dr.sc.ing. Iveta Mežinska together with Andris Balodis, business consultant and certified ISO 9000 lead auditor, who participated in the course from 2013 to 2018. As of the 2018/2019 academic year, the responsibility for the implementation of the course was taken over by assistant professor Dr.oec. Anita Straujuma, who defended her doctoral thesis a year ago and is currently involved in the activities in the field, incl. working in the Business Effectiveness Association. Both teachers of this course, Andris Balodis and Anita Straujuma, were nominated by the students for the FEEM Best Teachers Award last year, for their highly valued professional performance.

The courses “Conformity Assessment” and “Conformity Assessment (Study Project)” were implemented by researcher Dr.oec. Raimonda Liepiņa from the 2013/2014 to the 2015/2016 academic year. As the teacher changed jobs, in the period from the 2016/2017 to the 2017/2018 academic year, the course was led by M.sc.ing. Mārtiņš Ozoliņš, Director of the Latvian National Accreditation Bureau (LATAK), and RTU doctoral student and assistant researcher Mg.oec. Svetlana

Mjakuškina, Director of the State Construction Control Bureau of Latvia (BVKB), dividing the course topics according to each professional's competence. Supervised by the responsible teacher, since the 2018/2019 academic year, both courses have been implemented by RTU doctoral student and researcher, Master of Quality Management Maija Kavosa, Head of the Certification Department of BVKB. Some lectures in the course are still delivered by Svetlana Mjakuškina, who is in charge of the thematic block of market surveillance. Due to the professional experience of the academic staff, students have acquired comprehensive knowledge and valuable practical skills in the field of conformity assessment by working in groups during classes. The change of the academic staff in this study course has positively influenced the students' knowledge and ability to summarize the results of the research carried out within the framework of the study project on a situation or problem in the field of conformity assessment, skills to analyse and apply requirements of normative acts and international standards, as well as to improve their research skills by developing solutions to specific problems related to conformity assessment and by making proposals for improvement of the conformity assessment system.

Part B of the study program includes courses, the implementation of which is determined by the analysis of the previous education of a certain group of students in the respective study year. Consequently, some Part B courses are not implemented each year and / or are elective courses in several study programs.

The course "Process Management Methods" in the 2016/2017 academic year was implemented under the guidance of Ginta Grandāne, Executive Director of the Business Efficiency Association. Whereas, since the 2018/2019 academic year, the course is conducted by Lean expert Laila Keisele and by involving guest lecturers from the industry. The guest lecturers involved in the study course are professionals in the application of effective methods of quality management in various Latvian and international companies. Involvement of different guest lecturers in the implementation of the course has a positive effect on the course content and learning outcomes, bringing it as close as possible to real situations in the work environment. The course (as an elective course) is planned in two study programs simultaneously.

The course "Quality Improvement Project Management" was included in the program in the 2015/2016 academic year, it has been implemented by assistant professor Dr.oec. Rita Greitāne. The course develops an understanding of project management as an integral part of organizational quality management. The teacher has more than 20 years of academic experience, based on theoretical knowledge, she developed her promotional thesis on "Economical Assessment of Service Quality in Small and Medium-Sized Enterprises"; she has practical experience and continuous professional development. The course (as an elective course) is planned in two study programs simultaneously.

The course "Social Responsibility and Business Ethics - 4 CP" (until the 2016/2017 academic year "Corporate Social Responsibility and Business Ethics - 2 CP") was implemented by Professor Dr.oec. Inga Lapiņa, who is a leading teacher in this field, and has gained her expertise by working on several projects and writing several publications on corporate social responsibility, sustainability and organizational culture issues in the last 10 years. The course has been conducted in cooperation with a visiting teacher Jānis Černaļs, Business Process Manager at JSC "Sadale Tīkls", who has many years of experience in corporate social responsibility management in international companies where he has developed and monitored the implementation of sustainability strategies and plans, implemented sustainability reporting in accordance with sustainability reporting methodologies (CDP and GRI), and developed sustainability assessment systems in companies, and led and contributed to the development of innovative sustainable products. Jānis Černaļs has represented international companies in the European Commission's pilot project on common methods to measure and communicate the life cycle environmental performance of products and

was a member of the Technical Secretariat of this pilot project. The course (as an elective course) is planned in three study programs simultaneously for those students who have not mastered these topics in the previous study period.

The course “New Product and Process Development Methodology” until the 2015/2016 academic year was implemented by Professor Dr.oec. Elīna Gaile-Sarkane. The professor was the first in Latvia who, together with her Norwegian colleagues, established and implemented a course “Product Design and Development” in 2003, based on the methodology of the Massachusetts Institute of Technology. Since the 2016/2017 academic year, Mg.oec., lecturer Vita Brakovska (see <http://www.brakovska.lv/>), who is currently rated as the best and most professional teacher in the field of innovation and new ideas, analysis of new ideas and evaluation of potential, was invited to implement the course. Students highly value the knowledge and know-how of both teachers, as well as their ability to transfer the knowledge to students, and both teachers are nominated for various “FEEM Pride” awards each year. The course (as an elective course) is planned in three study programs simultaneously for those students who have not mastered these topics in the previous study period.

The course “Strategy and Change Management” until 2015/2016 academic year was implemented by expert of strategy and change, assistant professor Dr.oec. Jānis Caune. From the 2016/2017 to 2018/2019 academic year the course was conducted by assistant professor Dr.oec. Vladimirs Šatrēvičs. Currently the course is being implemented by Professor Elīna Gaile-Sarkane, who is responsible for the course and who is a leading teacher in this field at RTU. The course (as an elective course) is planned simultaneously in three study programs for those students who have not mastered this topic in the previous study period.

The course “Special English” was implemented by researcher Mg.phil. Ināra Dimpere. She has extensive experience in cooperation with quality management professionals – the academic staff, doctoral students, scientists, industry practitioners – as a translator and editor of scientific English. The students are provided with the opportunity to acquire a high level of professional terminology, to get acquainted with the relevant field and scientific literature in English. I.Dimpere is currently also working on an international project in the Department of Quality Technologies.

The course “CAQ Computer Aided Quality Control” in the reporting period was implemented by visiting assistant professor, Mg.oec. Jānis Pildavs, who has more than 20 years of academic experience in information technology, statistical methods and various quality management courses, as well as in the development of teaching materials in various international projects.

Starting from 2019, the study program includes completely renewed courses: “Methods of Statistical Analysis”, developed by associate professor Dr.math. Natalja Budkina, “Integrated Talent Management” by Professor Dr.oec. Inga Lapiņa in collaboration with industry professionals, “Standards in Entrepreneurship”, developed by assistant professor Dr.oec. Iveta Mežinska in cooperation with Ingars Pilmanis, head of “Latvian Standard” Ltd. and doctoral student Arta Pīlēna.

The implementation of the course “Integrated Talent Management” is planned for the first time in the spring semester of the 2019/2020 academic year as students did not choose it in previous years. The responsible teacher of the study course is Professor Dr.oec. Inga Lapiņa, who has supervised doctoral theses in this field, has produced several publications on human capital, intellectual capital and organizational culture issues, and is currently working on an international project on improving management competencies for excellence-based staff evaluation and sustainable organization development in Europe. The course envisages involvement of professional guest lecturers with experience in personnel and talent management. The course (as an elective course) is planned in two study programs simultaneously for those students who have not mastered these topics in the previous study period.

During the reporting period internship was coordinated by Master of Quality Management, assistant professor Jolanta Janauska who provides methodological support and consultations on the preparation of the internship report.

Master's theses development process is coordinated by responsible teachers and scientific consultants Professor and lead researcher Dr.sc.ing. Jānis Mazais and Professor Dr.oec. Inga Lapiņa. Assistant professor Jolanta Janauska provides methodological support and consultations in preparation and formatting of master's theses. Students work closely with their supervisors.

The change of the academic staff in the courses, where it took place during the reporting period, had a positive impact on the quality of studies; the extensive theoretical knowledge of the academic staff is regularly updated and practically applied in professional activities. Students gain both appropriate presentation of the theoretical material and practical examples based on teachers' experience. The students' evaluation in the cases when course teachers are changed has always been positive.

In the study program, regular measures are taken to positively influence the quality of the implementation of the study program and ensure the compliance of the study program with the requirements specified in normative acts.

**4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.**

Overall assessment of the academic staff is reflected in the information provided in the Study Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. This section will highlight the relevance of the qualifications and competences of the academic staff involved in the study program to teaching particular courses.

The qualification of the academic staff involved in the implementation of the study program fully complies with the study program implementation conditions and the requirements of the normative acts, ensures achievement of the study program and the respective study course goals and learning outcomes (see the CVs of the academic staff"). Teachers elected by RTU, visiting teachers and leading specialists in the field are involved in the implementation of the study program. The academic staff members elected by RTU are responsible for the content and design of study courses. Usually a team of academic staff members works under the guidance of the head of the department and the teacher responsible for the implementation of the course, the team may involve professionals of the field, doctoral students and visiting teachers. In the professional master's study program, the responsible teachers for the courses are the academic staff members with a PhD. The academic staff elected by RTU and visiting teachers with a master's degree and at least 7 years' experience in quality and process management, conformity assessment or risk management, who comply with the requirements of Article 39 of the Law on Higher Education Institutions, also participate in the implementation of the program.

**Professor Inga Lapiņa, the study program director** and Head of the Department of Quality

Technologies holds a PhD in Economics and a Master of Science in Education, she also has higher education in economics with a specialization in statistics; more than 23 years' experience in higher education: in study process management, research, quality assessment and international project management; she has participated in the education system development as an expert, researcher and project manager in more than 20 projects and studies, promoting interdisciplinary and inter-sectoral international cooperation and research with significant contribution to the improvement of Latvian education system. Since 2008, she has gained experience in more than 20 working groups of experts on evaluation of higher education institutions, study directions and study programs. Currently she works as Vice-Chair of the Study Quality Commission. She has participated in the higher education quality assessment events organized by the Higher Education Quality Agency of the Academic Information Center, and has given lectures and consultations at the Latvian Student Association seminars on the development and quality assurance of higher education. She has extensive international experience in quality assessment, including participation in expert groups of the Centre for Quality Assessment in Higher Education of Lithuania and International Quality Accreditation (IQA) CEEMAN. She has significant experience in Latvian and international organizations, she is a member of the Latvian Employers' Confederation in the Tripartite Cooperation Subcommittee, of Vocational Education and Employment, a member of the Council of Experts in Business, Finance, Accounting, Administration, a member of the Board of BMDA – Baltic Management Development Association and a representative of EQUAL – A Forum Around Quality Assurance. She is also a RTU representative in the working group of the CESAER – Conference of European Schools for Advanced Engineering Education and Research: Task Force Science and Technology Education for the 21st Century. I.Lapiņa is a representative of RTU in the American Society for Quality (ASQ), USA, and a representative of RTU FEEM in “Principles of Responsible Management Education – PRME”, UN Initiative, USA. She acts as a representative in the Latvian Technical Committee for Standardization LVS/STK/10 “Quality Management and Quality Assurance”, incl. issues related to the development and harmonization of terminology. In the 2109/2020 academic year, she was on internship at “Latvian Standard” Ltd.

**Professor and leading researcher Jānis Mazais**, besides his academic, scientific and organizational activities, is an active member of Latvian and global organizations promoting the implementation and development of quality standards, and is the Chair of the Accreditation Commission of the Latvian National Accreditation Bureau, Deputy Chair of the Latvian Technical Committee for Standardization LVS/STK/10 “Quality Management and Quality Assurance” of ‘Latvian Standard’ Ltd, RTU representative at the Latvian Quality Society, member of the American Society for Quality (ASQ) (since 1992). He has developed study courses in bachelor and master's study programs “Total Quality Management” (in the Latvian language), and courses in “Quality and Environmental Management” and “Quality Technology and Quality Management” (in English) in other RTU study programs, developing also the international reputation and internationalization of RTU. He participates in several European and global projects, for example, as one of the most significant in the period 2006-2010 was participation in the ASQ ISO-TC 176 International Study Group where a New Work Item Proposal – Justification Study was developed, and also developed the ANSI Z1.11 Document “Application of the ISO 9001 Quality Standard in Educational Organizations”. The identification of the application of the ISO 9001 quality standard in educational institutions is a milestone in the integration and indexing of quality systems in the educational process in Latvia.

**Assistant professor Dr.sc.ing. Iveta Mežinska** holds a Master's Degree in Management and a PhD in engineering, her doctoral thesis was on integrated management systems. Up to now, it is the only doctoral thesis in Latvia in this field. She has 20 years' professional experience in conformity assessment – certification of organization management systems, research of integrated management systems. I.Mežinska has worked as a teacher of short training courses at “Bureau Veritas Latvia” on topics such as ISO 9001, interpretation of ISO 14001 requirements, internal audit.

She works for an accredited certification body as a technical manager and a lead auditor. In the study program, she ensures awareness of the current issues in the field and practical application in work with students. Working in the Technical Committee for Standardization allows her to keep track of changes in standards at a very early stage of their development, so that the most up-to-date information is used in the study course.

**Assistant professor Dr.oec. Anita Straujuma** holds a Master's Degree in Computer Science, a Master's Degree in Business Administration (MBA) and a PhD in Economics. She has professional experience working in the IT industry for more than 10 years, participating in establishing and managing the leading medical software company in Latvia. She has more than 25 years of practical experience in managing non-governmental organizations, participating in international research projects and conferences, creating and developing a scientific journal, organizing international conferences and teaching experience in the field of economics.

**Professor Elīna Gaile-Sarkane** holds a PhD in Economics, since 2000 has authored 130 scientific publications on topics such as strategic management, business models, innovation, using the electronic environment to promote business competitiveness, interdisciplinary methodology for business skills development etc. She is a teacher for bachelor, master and doctoral students in subjects related to marketing, strategic management of companies and innovations. Since 2005, each year she has been the winner of the "Annual Award for Teachers" or "RTU FEEM Pride", and has repeatedly been nominated for "RTU Best Teacher of the Year". She has participated in various projects, co-owns two patents: a method for separating and spreading butter and similar substances, and a device for carrying out the process, and a holder for transporting wet paintings. Under her guidance, 5 doctoral theses have been defended. E.Gaile-Sarkane has been the manager or researcher of more than 20 international and national research projects.

**Lead researcher Nadežda Semjonova** holds a PhD in Economics; she carries out research work and participates in international conferences, seminars and courses. Her practical and academic experience fully corresponds to the specifics of the study course. The acquired knowledge and skills are successfully integrated into the study courses, ensuring students' successful achievement of learning outcomes. N.Semjonova's qualification helps students to understand international and national normative acts regulating quality system costs, as well as related investment and operational costs, to choose and apply correct and effective mathematical methods in order to assess the current situation in Latvian or foreign companies, as well as to develop competence in preparing proposals for optimizing the costs of the quality system.

**Assistant professor Dr.oec Rita Greitāne** holds a PhD in economics. Every year she develops her professional expertise in project management, e.g., in 2018 in Project Management Workshops organized by "Komerzizglītības centrs" (KIC). She also engages students in research activities and projects: in the 2018/2019 academic year, a project commissioned by the State Railway Administration "Survey on Railway Passenger Satisfaction with the Quality of Railway Passenger Services in Latvia in 2018" with 50 students as project members, surveying 1134 respondents, thus developing students' project management skills, application of project management methods. By attending scientific and academic conferences, R.Greitāne collects the latest findings in project management and student-centered education that are integrated into the study process so that students are capable of preparing quality improvement projects within organizations, planning work and project resources.

**Associate Professor Dr.math. Natalja Budkina** is a teacher with more than 25 years of teaching experience. Participation in scientific conferences and preparation of publications help to keep the study content up to date, to follow the latest applications of statistical analysis methods in various fields, including quality management process analysis. She regularly participates in

international and national methodological conferences, learns about different teaching methods and their suitability for different needs of students.

**Assistant professor Guntis Tribis** holds a Master's degree in Engineering (Mg.sc.ing.) and a Master's Degree in quality assurance and management. His professional experience over a period of more than 25 years has been closely related to risk assessment of hazardous industrial sites and development of risk management proposals in the Republic of Latvia. He is a member of the Board of the Latvian Risk Management Association. Students learn about current issues in risk assessment and management and acquire practical skills in the field of industrial risk assessment. Through active work and the unity of theory and practice, the study process is designed in accordance with the principles of the student-centered approach. Academic knowledge and pedagogical competence and professional experience gained by G.Tribis ensure full achievement of learning outcomes.

**Assistant professor, applicant for a scientific degree Līga Kamola** holds a Master's Degree in Educational Sciences (Mg.edu.) and public management (Mg.oec.) at the University of Latvia, and has completed her PhD studies as an applicant for a scientific degree in the FEEM study program "Management Science and Economics"; she is currently working on her doctoral thesis. In addition, she enhances her knowledge of the latest industry and scientific trends in various local and international courses, seminars, professional and scientific conferences. She has more than 10 years of teaching experience at RTU and has participated in several research projects. While developing her doctoral thesis, she has written scientific articles, developed her research skills. During the study process, working with students in group work, research projects and case studies she has developed students' skills in carrying out research and analysing results.

**Assistant professor Jolanta Janauska** holds a Master's degree in Quality Management (Mg.oec.). She has 19 years of work experience in the program "Total Quality Management". She has participated in several research projects, developed scientific articles on the use of quality management methods to improve the study process. She continues enhancing her professional knowledge and skills by attending seminars and conferences organized by RTU, as well as seminars and conferences outside RTU. The acquired knowledge and skills are used in the study work, coordinating the students' internship, as well as offering methodological consultations to students in the preparation of internship reports and final theses.

**Doctoral student and researcher Maija Kavosa** holds a professional Master's Degree in Quality Management (Mg.oec.). She has experience working as a quality manager and head of a certification body, is a researcher and participant in research projects commissioned by companies. The research component of her work includes active doctoral studies, participation in scientific conferences and preparing publications. Her professional activity in the field of conformity assessment, as well as participation in the expert committee of "Latvian standard" Ltd on quality management and conformity assessment issues provides knowledge of the latest trends in the field, facilitates the acquisition and use of methods, allows gaining and sharing experience, as well as cooperation with conformity assessment bodies within the study process. Under her guidance, students learn topical issues related to the field of conformity assessment, methods used in the context of research and conformity assessment. Full achievement of learning outcomes is ensured both by the acquired knowledge in quality management and practical experience in the field of conformity assessment.

**Doctoral student and researcher Irina Degtjarjova** holds a Master's Degree in Education Management (Mg.sc.soc.), has completed her PhD studies at the University of Latvia as an applicant for a scientific degree in management sciences, and continues her studies in the RTU doctoral program "Management Science and Economics". She has completed a professional development program in quality management; her professional experience related to working at higher



education institutions is as follows: quality manager for more than 10 years, researcher, and participant in research and infrastructure projects. She works in the Latvian Quality Society and participates in seminars organized by the Business Efficiency Association, thus ensuring awareness of the current trends in the field, promoting the acquisition and sharing of methods, enabling her to gain and share experience, to transfer good practice, to provide students with information on topical issues and an opportunity to learn research and quality methods. The research component in the work with students is ensured by active doctoral studies, participation in scientific conferences and preparation of publications. Through active engagement and cognition, visibility, continuity, unity of theory and practice, as well as using scientific, accessible, systemic and consistent approach, she ensures that the study process is designed according to the principles of a student-centered approach. The achievement of learning outcomes is ensured by I.Degtjarjova's knowledge in the field of management science and pedagogical competence, as well as many years of practical experience.

**Researcher and lecturer Ināra Dimpere** holds a Master's Degree in English Philology from the University of Latvia (Mg.philol.). The English teacher has 37 years' experience in schools and universities, has 10 years' experience working with master students in the study program "Total Quality Management", as well as editing and translating scientific articles for RTU FEEM researchers and doctoral students. Along with her work at RTU, she works on the education project "School 2030" at the National Centre for Education developing foreign language curricula and syllabi for secondary school, as well as participates and presents at seminars and conferences, sharing her experience and gaining more knowledge about competency-based learning that is integrated in her work with master students. During the classes, master students are actively involved in the planning and design of the learning process, giving presentations, discussing and analysing quality management topics and journal articles, and expanding their knowledge of terminology.

**Visiting teachers - professionals in the field** are also involved in the study program. They deliver lectures, work as teachers in the teams of the responsible professors, supervise master's theses; some of them are graduates of this program.

**Visiting assistant professor Jānis Pildavs** holds a Master's Degree in quality management (Mg.oec.). He is a teacher of quality management courses with 20 years' experience. The research component in his work with students is provided by regular reading of scientific and professional articles on quality management in scientific databases and professional periodicals such as "Quality Progress", as well as keeping up with the latest industry development trends. Full achievement of learning outcomes is also ensured by his qualification as an engineer. He has experience in organizing company visits with the aim to gain practical experience in quality management by evaluating certified quality systems. He actively promotes implementation and research of quality management system based on the "Investors in Excellence" model at BA School of Business and Finance.

**Visiting assistant professor Armands Ploriņš** graduated from the Faculty of Economics and Management of the University of Latvia in 2000 with a Master's Degree in Management (Mg.oec.) with a specialization in quality management. His professional experience in quality management is 19 years; his current job is at the certification body "Det Norske Veritas, Latvia", his field of expertise: technical expert in certification audits in the food industry, certification of management systems, conducting courses and seminars for quality managers of companies of different industries in Latvia and abroad. His professional experience and conducting courses and seminars provide knowledge of the latest industry trends. The acquired and accumulated versatile knowledge and practical experience in quality management is passed on to students, who acquire in-depth knowledge of the field and the most current trends in its development during the classes.

**Visiting assistant professor Vita Brakovska** received a professional Master's Degree in Innovation and Entrepreneurship from RTU in 2011. V.Brakovska has more than 10 years of international experience in promoting creative thinking in the Baltics and CIS, and experience as a lecturer in several Latvian universities, more than 20 years of practical experience working with NGO human resource development. She regularly cooperates with regional business incubators, advising authors of ideas in regions of Latvia. V.Brakovska is the founder and head of the Knowledge and Innovation Society, with experience in developing and conducting more than 1,100 entrepreneurship training programs since 2009, both in the private and public sectors. V.Brakovska's competencies have been highly appreciated by such state institutions as the State Audit Office, the Cross-Border Coordination Center, the Ministry of Environmental Protection and Regional Development of the Republic of Latvia, the Ministry of Education and Science (participation in the working group "Education for All" under the leadership of the Minister), the Ministry of the Interior, State Chancellery, the Ministry of Culture, the Ministry of Health, the Treasury, the State Revenue Service, the Latvia Local Government Training Center as well as the British Council, UNESCO, the US Embassy, by the private Sector – IT Cluster, TET, TV Play Home, Narvesen Baltic, IF Latvia, DNB Bank, Nordea Bank, SEB Bank, Karlo Motors etc. Regular collaboration with partners and companies from different disciplines allows keeping abreast of current information and integrate it into the study process. Participation in partners' international projects allows regular contacts with experts and competences available outside Latvia, which is used to improve the quality of the education process.

**Visiting assistant professor Laila Keisele** received a Master's Degree in Innovation and Entrepreneurship from RTU in 2015 and a Master's Degree in Business and Institution Management from RTU in 2016. She has also obtained Lean Expert Certificate. L.Keisele has 19 years of experience in quality management and more than 7 years of experience in implementing quality management methods in Latvian and international companies. L.Keisele has professional experience in companies such as Sanitary Border Inspection (Head of Quality Assurance), ABB Baltic (Head of Quality), AAS Balta Insurance (Head of Corporate Sales Department), JSC Pasažieru vilciens (Head of Business Development), Circle K Europe Business Center (Senior Lean Expert), Latvijas Pasts (director of postal network). L.Keisele's key business areas and achievements in companies: short- and long-term strategy development, process approach implementation, efficient product delivery system development, she has managed and implemented business projects to achieve business excellence, led Lean projects of various types and sizes in CEE countries. Her long-term and diverse professional experience, as well as conducting personnel training in companies, enables her to continuously improve professional knowledge, skills and competences, as well as to follow the latest trends in the field. The acquired knowledge and professional practical experience is successfully integrated into the study process, where students acquire knowledge about effective quality management methods and skills in their practical application.

All courses related to professional qualifications also include **guest lectures by industry professionals**. Some examples: Dainis Lapiņš, Director of DAREL Ltd. and Guna Eglīte, Deputy Head of the Administrative Department of Riga Social Service were invited to the study course "Process analysis and management", Sandis Babris, member of the board of BEA and Vanda Vaščenkova, Deputy Chair of the Board of Latvian Quality Society conducted lectures in the study course "Quality Management"; Ingars Pilmanis, board member of "Latvian Standard" Ltd, Mārtiņš Ozoliņš, deputy head of State Agency "Latvian National Accreditation Bureau", Rihards Elmanis-Helmanis, Head of Inspection Group of JSC "High Voltage Network" as guest lecturers described the requirements for inspection and calibration laboratories according to Standard ISO/IEC 17020 in the course "Conformity Assessment"; Iveta Daugule, Chief Labour Protection Specialist of the Emergency Medical Service and Mārtiņš Žogots, Head of Integrated Management System of Fortum Jelgava Ltd., are invited each year to the course "Integrated Management

Systems”.

**Guest lectures of foreign teachers** are organized every year as a compulsory part of the study process. For example:

In the 2013/2014 academic year, Andrius Rakickas, a lecturer at Siauliai University (Lithuania), led group work – the game “Business simulation model” in the course “Strategy and Change Management”.

In the 2014/2015 academic year, students attended the lecture “Intercultural Communication” by visiting teacher Silke Buhl from Dresden University of Applied Sciences (Germany). Lecturer Lina Giedrimiene from Siauliai University (Lithuania) visited the study course “Corporate Social Responsibility and Business Ethics”.

In the 2015/2016 academic year, visiting Professor Henkjan ten Zijthoff (Netherlands) delivered a lecture on “Human Resource Management and Change Management” in the course “Corporate Social Responsibility and Business Ethics”.

In the 2016/2017 academic year, visiting teacher Tauno Jokinen (Finland) delivered a lecture on Business Ethics in the course “Corporate Social Responsibility and Business Ethics”.

In the 2017/2018 academic year, associate professor Metehan Sorkun from the Izmir University of Economics (Turkey) gave a lecture on “Modelling management problems with linear programming”. Visiting teacher Lidija Kraujaliene from Vilnius Gediminas Technical University (Lithuania) gave a lecture on “Development of Business projects”. Professor Christian Weib (Germany) led a guest lecture on “Risk Governance”.

In the 2018/2019 academic year, visiting teacher Silke Buhl from Dresden University of Applied Sciences (Germany) gave a lecture on “Intercultural Theories”. Visiting teacher Karolina Daszynska-Żygadlo from Wroclaw Higher School of Economics (Poland) delivered a lecture on “Corporate Sustainability” and visiting teacher Vita Jukneviene from Siauliai University (Lithuania) delivered a lecture on “Management of Innovation Systems”.

In order to improve their professional competence and practical experience, a total of 7 **academic staff** members involved in the program are undergoing training at “Latvian Standard” Ltd within the framework of the project “To strengthen the academic staff of RTU in the areas of strategic specialization” from August 2019 to the end of 2021 (200 hours in 6 months). During the internship, it is planned to create a glossary of quality and conformity terminology, which is needed both in the industry and in the study process.

As already mentioned, for individual achievements of the academic staff, see their CVs, for the publications of the academic staff, see also the Study Direction Report.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Overall assessment of the academic staff is reflected in the information provided in the Study Direction Report, Part II, Section 3, Criteria 3.5 to 3.6 and in the CVs of the academic staff. For more information about the study process and student involvement in research, see Section 2.5.

The academic staff members of the study program, both nationally and internationally, are engaged in scientific research in the field of quality management and conformity assessment, and the acquired information and experience is integrated into the study process. The research areas of RTU FEEM Department of Quality Technologies are: quality technologies, systems, process management, risk and conformity assessment and others. Through continuous improvement and a process approach, the organization creates an environment where processes, products and services meet customer requirements and needs, are safe to use, create value for society and the environment. Quality management is part of the management process of any modern organization that contributes to customer satisfaction, which ensures long-term success and effective and efficient operation of the organization, therefore research in this area is integrated into multidisciplinary cross-sectoral research. The research is closely linked to the implemented study programs at the bachelor and master's level, as well as the doctoral studies of the department. For example:

- Quality of systems, technologies and processes (Professor, leading researcher J. Mazais, Assistant professor, leading researcher I. Mežinska).
- Quality and process management, sustainability and social responsibility, knowledge management (Professor, leading researcher I. Lapiņa, Assistant professor, researcher A. Straujuma, doctoral student, assistant researcher A. Medne).
- Integrated management systems and standardization (Assistant professor, leading researcher I. Mežinska, doctoral student and assistant researcher A. Pīlēna).
- Education quality and labour market demand-based competences, human and intellectual capital (Professor I. Lapiņa, assistant professor J. Janauska, doctoral student and assistant researcher T. Ņikitina).
- Measurement accuracy/uncertainty, conformity assessment, risk management (Associate professor J. Miķelsons, doctoral student and researcher M. Kavosa, assistant researcher S. Mjakuškina).
- Organizational and quality culture in the context of organizational life cycle (Professor I. Lapiņa, doctoral student I. Kairiša).
- Market surveillance and certification: improvement solutions in Latvia and the European

Union (Professor I.Lapiņa, doctoral student and assistant researcher S.Mjakuškina and doctoral student and researcher M. Kavosa).

Project results have a significant impact on the study programs as research results and findings are integrated into study courses. The projects mainly involve the academic staff and doctoral students most of whom prepare and lead study courses. Participation in projects allows doctoral students and researchers to provide students and others involved in scientific research with new and up-to-date knowledge. It helps to develop the ability to independently and critically analyse the results of the projects and the developed solutions which can be used in the respective fields of research to solve important tasks and to create and manage independent projects.

Students acquire research skills by regularly working with literature, various scientific databases, and Internet resources to successfully develop study papers, internship reports, and master's theses. A master's thesis is a serious research that is developed as an applicable solution to a current problem based on research in a particular company or field. As mentioned in Section 2.5, students present their research results at student conferences.

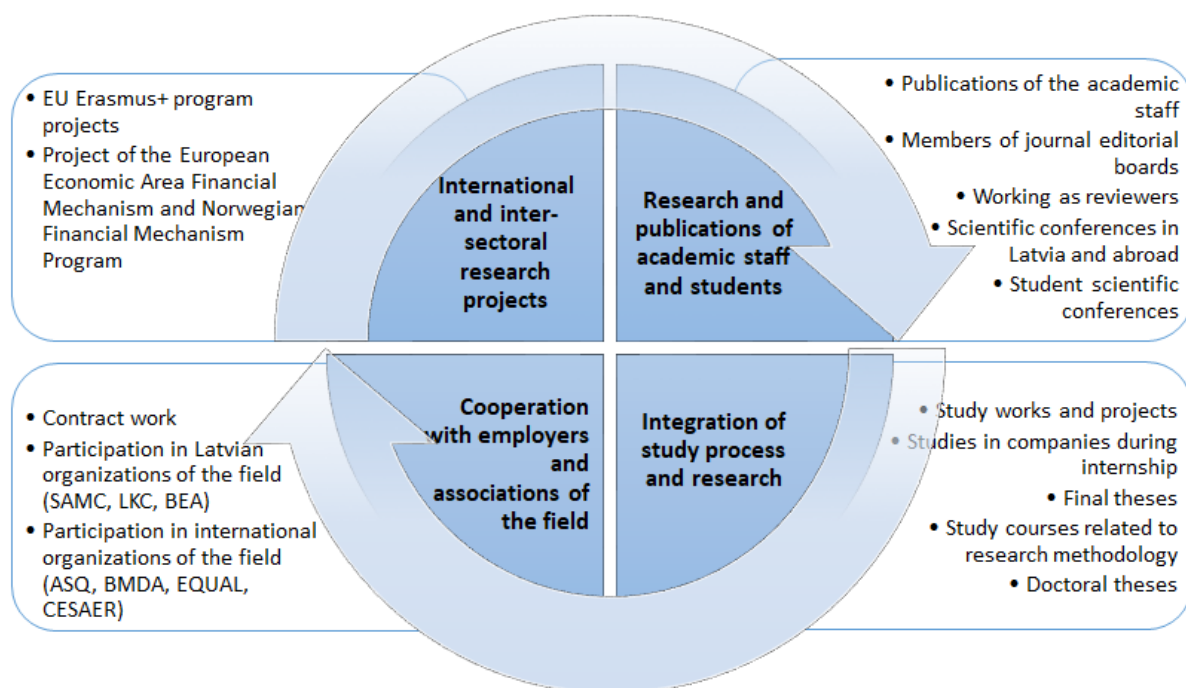


Figure. Study and research integration at the Department of Quality Technologies

**Research is integrated into the study process.** This interaction is complemented and updated by labour market research and consultations with employers and practitioners. The changes are mainly focused on contemporary and applied research. The process of research and studies is organized in such a way that the topics of students' study and research work cover current issues of quality and process management, continuous improvement technology, risk and conformity assessment.

To ensure international research, since 2014, every year Professor Inga Lapiņa and her colleagues and doctoral students have been participating in QMOD-ICQSS (Quality Management and Organisational Development / an International Conference on Quality and Service Sciences) conference, which has become one of the largest scientific conferences in the world in the areas of quality, service, organizational development and related issues. Starting from 2016, KTK doctoral students Svetlana Mjakuškina, Maija Kavosa, Irina Degtjarjova and Aija Medne, as well as assistant professor Anita Straujuma have presented at the conference.

In 2016, Professor Inga Lapiņa chaired the section on "Quality in Higher Education" at the QMOD-

ICQSS Conference “Building a Culture for Quality, Innovation and Sustainability” in Rome, Italy. Three scientific publications by KTK representatives were presented at the conference:

- Meiers-Meiris, I., Mazais, J., Lapina, I. “Effect of Management System Integration on Company Performance in Energy Industry of Latvia”.
- Kavosa, M., Lapiņa, I., Briņķis, K. “The Evaluation of Certification in the Field of Energy Construction in Latvia”.
- Straujuma, A., Ozoliņš, M., Lapiņa, I., Gaile-Sarkane, E., and Stensaker, B. “The Role of Regulatory Compliance Governance in Strategic Management of Higher Education and Research Institutions”.

At the 2017 QMOD-ICQSS Conference “Challenges and Opportunities of Quality in the 4th Industrial Revolution” held in Helsingør, Denmark, Professor Inga Lapiņa chaired the ISO 9000 Quality Management System section, receiving a special thank you for her contribution to the conference development, as she had been participating in the work of the Scientific Committee of the Conference reviewing articles and chairing sections since 2014. Three scientific publications by KTK representatives were presented at the conference:

- Imants Meiers-Meiris, Jānis Mazais, Inga Lapiņa “Risk management framework for Integrated Management Systems”;
- Svetlana Mjakuškina, Inga Lapiņa “The Product Conformity Assessment Elements in the Integrated Management System”;
- Maija Kavosa, Inga Lapiņa “Certification Process in the Field of Energy Construction in Latvia: Risk Analysis”.

At the 2018 QMOD-ICQSS Conference “The Quality Movement – where are we going?” held in Cardiff, United Kingdom, Professor Inga Lapiņa chaired a section on “Gamification, Motivation, Performance; Leadership, Job Satisfaction, CSR; CIP”. Four scientific publications by KTK representatives were presented at the conference:

- Maija Kavosa, Inga Lapiņa “Certification Process: Conformity Assessment or Professional Competence Assessment?”;
- Svetlana Mjakuškina, Maija Kavosa, Inga Lapiņa “The Analysis of Supervision Process in the Field of Construction: Case in Latvia”;
- Aija Medne, Inga Lapiņa “EFQM Excellence Model Towards Sustainability of University’s Quality System”;
- Irina Degtjarjova, Inga Lapiņa “Students’ as the Stakeholders’ Perception of the Quality of Higher Education”.

At the 2019 QMOD-ICQSS conference “Leadership and Strategies for Quality, Sustainability and Innovation in the 4th Industrial Revolution” held in Krakow, Poland, Professor Inga Lapiņa chaired the section “Quality Management Systems, Weight of Standards, Performance”. Three scientific publications by KTK representatives were presented at the conference:

- Maija Kavosa, Inga Lapiņa “Professional competence assessment analysis in the certification process through Value Stream Mapping: A case study in the construction sphere”;
- Aija Medne, Inga Lapiņa, Artūrs Zeps “University Quality System Development: KPIs for Strategy Evaluation”;
- Irina Degtjarjova, Jolanta Janauska, Inga Lapiņa, Jānis Mazais, Jānis Pildavs “Quality Assessment of Study Program: Application of Quality Function Deployment Methodology”.

Since 2011, the academic staff involved in the program regularly participate in the International Scientific Conference “The World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI”, Orlando, United States. In total, during these years, 15 articles by the academic staff

involved in the study program were presented at the conference. All the publications can be found in the list of publications and the CVs of the teachers.

It should be noted that in July 2017, at the International Scientific Conference “The 21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017” in Orlando, USA, the section of RTU FEEM was organized by professors E. Gaile-Sarkane and I. Lapiņa, and the academic staff members of the study program participated with publications of various research results. In the conference section “Transformation of Education and Research: Applicability and Sustainability”, the results of the European Economic Area Financial Mechanism and Norwegian Financial Mechanism Program Project No. NFI/R/2014/006 “EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia”, as well as Lifelong Learning Programme Transfer of Innovation, Multilateral Projects, Leonardo da Vinci project “Employability and Skills Anticipation Policies: a Social ROI Approach”, Erasmus+ Key Action 2 “Cooperation for innovation and the exchange of good practices” strategic Partnership project “Coaches of SMEs: 5POINTS Trainings”, Erasmus+ Key Action 2 “Cooperation for innovation and the exchange of good practices” strategic Partnership project “Innovative strategic partnership for European higher education” were presented.

The work of the conference section focused specifically on wider dissemination of the results of several projects and the department researchers also presented three articles:

- Tatjana Ņikitina, Inga Lapiņa “Overview of Trends and Developments in Business Education”
- Anita Straujuma, Inga Lapiņa, Elīna Gaile-Sarkane, Modris Ozoliņš “Policies, Legislation and Regulatory Compliance Governance Impact on Strategic Management of Higher Education and Research Institutions in Latvia”
- Inga Lapiņa, Deniss Ščulovs, Elīna Gaile-Sarkane, Mikus Dubickis, Tatjana Ņikitina “Contemporary Study Process for Enhancement of Employability in the Dynamic Environment”.

The article by Anita Straujuma, Inga Lapiņa, Elīna Gaile-Sarkane, and Modris Ozoliņš received the nomination “Sessions’s Best Paper Award” in the section.

Examples of the academic staff research activities:

The research areas of **Iveta Mežinska** are the principles of developing integrated management systems of companies, integration strategies and methodologies of integrated management systems. Students are involved in developing integrated management systems in organizations of their choice. Development covers all the important stages of creating an integrated system, from identifying the needs and requirements of the stakeholders, development of an integrated management system model for the selected organization, to the application of the elements of the integrated system in processes and procedures. Current publications on integrated management systems are used in the preparation of the theoretical material of the course on integrated management systems.

**Inga Lapiņa** is a member of the editorial board and reviewer of the “International Journal of Quality and Service Sciences” (indexed in the Scopus and Web of Science databases), reviewer of the international scientific journal “Total Quality Management & Business Excellence” (indexed in the Scopus and Web of Science Databases), reviewer of the international journal of scientific articles “Journal of Cleaner Production” (indexed in the Scopus and Web of Science databases), member of the Scientific Committee and Section Chair of the Conference on Quality Management and Organizational Development – QMOD. Her scientific activities, closely linked with her pedagogical and research expertise, contribute to the growth of students both in her study courses, in supervising bachelor and master’s theses, and in acting as program director. Over 60 publications

have been produced in recent years, including over 15 in leading industry journals (top 30), indexed in the SCOPUS and WoS databases, and also cited. All indicators, incl. h-index, have significantly increased in scientific research recently. One of the articles written last year together with doctoral student Irina Degtjarjova and master student Dāvis Freidenfelds is closely related to research of the study environment: "Student as a Stakeholder: Voice of Customer in Higher Education Quality Development". I.Lapiņa has published scientific articles, researches, methodological and strategic documents in the field of quality management, participated in the development and updating of the RTU Quality Policy in 2011, and in the preparation of the Riga Technical University Excellence Approach in 2017.

**Jānis Mazais** is a member of the editorial board of the international scientific journal "Research on Enterprise in Modern Economy" (Gdansk University of Technology) and a member of the editorial board of the international scientific journal "Journal for Sustainable Development" (Skopje, Republic of North Macedonia). He has participated in international scientific conferences, published articles in internationally cited editions, and has been participating in organizational activities. Professor has many years of scientific experience in the field of quality management, incl. in the beginnings of quality management in Latvia. He is still active in research, and research work is one of the compulsory components of the study courses he leads. The professor has prepared two chapters: "Quality Assurance" and "Quality and Service Awards, Russia", for the international encyclopaedia "The SAGE Encyclopaedia of Quality and Service Economy", edited by Professor Su Mi Dahlgaard-Park, published by: California, Thousand Oaks: SAGE Publications, Inc., 2015.

**Anita Straujuma's** research activities include knowledge management, especially collaboration with graduates in the context of customer knowledge management. A.Straujuma has been involved in the organization of the international conference "ICARe ALUMNI" since its foundation. Each year the conference brings together professionals and researchers from more than 23 countries who present their scientific articles, and a collection of articles is published. The experience and information gained is used in the study process, in student training, in developing their practical experience and in testing their knowledge, using contemporary methods that include online tools and other IT solutions.

**Nadežda Semjonova** is currently working on the European Regional Development Fund Operational Programme "Growth and Employment", specific support objective 1.1.1. "To increase the research and innovation capacity of scientific institutions of Latvia and the ability to attract external financing, investing in human resources and infrastructure", the activity 1.1.1.2. "Post-doctoral research support" (No. 1.1.1.2/VIAA/2/18/343) and is implementing the project "Methodology for commercialization of innovative biomedical devices and evaluation of production financing model" which is directly related to management of product quality costs. Within the framework of the project, N. Semjonova cooperates with other European higher education institutions and with the Association of Manufacturers and Suppliers of Medical Devices of Latvia. It enables her to take over good practice, to ensure coherence between theory and practice, and to gain and share experience on current issues in the field.

**Rita Greitāne's** research experience in developing her doctoral thesis on economic provision of service quality in small and medium-sized enterprises, as well as her practical experience in participating in education-related projects and the aforementioned project commissioned by public authority, ensure coherence between science and practice in the study process. In the quality improvement project management course, students in teams implement projects on an identified quality-related problem within a particular company. The students' skills of developing, implementing and managing improvement projects, defining responsibilities and powers within the project, as well as business communication skills with stakeholders are developed.



One of **Natalja Budkina's** research interests is mathematical statistics and its applications. There are several publications and reports by N.Budkina at international conferences, which were prepared in cooperation with colleagues from the University of Latvia and the Central Statistical Bureau. Research of methods of statistical analysis in various fields ensures updating and improvement of the topics of the study course "Methods of Statistical Analysis".

Professor **Elina Gaile-Sarkane** has academic and scientific experience of more than 20 years at a higher education institution. In addition to her PhD in Economics, professor also holds a Bachelor's Degree in Science in Engineering (Bachelor of Science in Chemical Industry), providing an excellent foundation for academic and research work on innovation, management, and entrepreneurship, so her research focuses on interdisciplinary areas, covering management science, innovation management, technology transfer and various aspects of entrepreneurship. Professor Gaile-Sarkane has over 150 scientific publications in management, economics and related fields. More than 35 of them have been published in internationally recognized publications or conferences with indexing in international databases (e.g., Thomson and Reuter, Scopus, EBSCO, etc.). Professor Gaile-Sarkane is the author and / or co-author of 4 course books, 3 monographs, and 1 patent. Under her guidance, four Doctors in Economics have defended their theses. Professor Gaile-Sarkane is a member of RTU Promotion Council P-09, Expert of the Latvian Council of Science, Expert of the Czech Science Foundation, member of many international organizations, member of the Joint Professor Council in Management and Economics Sciences of "RISEBA" University of Business, Arts and Technology, BA School of Business and Finance and Ventspils University College.

Assistant professor, applicant for a scientific degree **Līga Kamola** holds a Master's Degree in Educational Sciences (Mg.edu.) and in Public Management (Mg.oec.) awarded by the University of Latvia, and has completed her PhD as an applicant for a scientific degree in the FEEM study program "Management Science and Economics"; she is currently working on her doctoral thesis. In addition, she enhances her knowledge of the latest industry and scientific trends in various local and international courses, seminars, professional and scientific conferences. She has more than 10 years of teaching experience at RTU and has participated in several research projects. While developing her doctoral thesis, she has written scientific articles, developed her research skills. During the study process, working with students in group work, research projects and case studies she has developed students' skills in carrying out research and analysing results. L.Kamola participated in the working group of the European Social Fund project "Evaluation of Higher Education Study Programs and Proposals for Quality Improvement" Agreement No. 2011/0012/1DP/1.1.2.2.1/11/IPIA/VIAA/001. She has participated in several RTU projects, for example, "Development of Performance Measurement System for Latvian Small Businesses", "Analysis and Evaluation of Factors Affecting Sustainable Development of Latvian Small and Medium Enterprises", etc. In addition, attending a variety of local and international courses, seminars, professional and scientific conferences enhance L.Kamola's knowledge of the latest trends in the industry and science. Her membership in the Industrial Engineering and Operations Management Society (IEOM) "Achieving and Sustaining Operational Excellence" provides her with current information and opportunities for scientific cooperation.

Doctoral students **Maija Kavosa** and **Svetlana Mjakuškina**, who are involved in the implementation of the study program, actively cooperate in both research and pedagogical fields. Co-operation with conformity assessment bodies provides an opportunity to attract relevant professionals as guest lecturers, as well as for students to go and have classes in the appropriate conformity assessment bodies. Individual and group work is organized to provide students with knowledge and understanding of the conformity assessment of products, processes, persons and management systems in accordance with the requirements of international standards and regulations. Within the framework of the study program, students explore and analyse the situation

in a particular field of conformity assessment, developing solutions to a particular problem related to conformity assessment and making proposals for improvement of the conformity assessment system. The research carried out within their doctoral theses ensures updating and improvement of the topics included in the study program in order to develop master students' understanding of the conditions of conformity assessment procedure application, developing their professional terminology usage skills, and stimulating discussions regarding the development of improvement proposals for possible conformity assessment activities.

Doctoral student **Irina Degtjarjova's** research activity is related to quality in higher education and the implementation of a student-centered approach. It is directly related to the study process: students are involved in content development – through personal experience, new approaches to content acquisition; diverse teaching and learning methods are selected according to the learning situation and the needs of the group; the study environment is active, cooperative. Quality management issues also include quality aspects of higher education. The research carried out within the framework of her doctoral thesis (survey on factors influencing the quality of studies, research on students' expectations and perceptions on the quality of the study process) has helped I. Degtjarjova to identify the strengths of the study program and opportunities for its improvement. Her research results were presented and discussed at international conferences: quality of education in the stakeholder theory aspect – at Vilnius Gediminas Technical University (Lithuania), students' expectations and perceptions of education quality – at QMOD conference, education quality factors – at FEEM conference.

The academic staff members of the department actively participate in the research work of FEEM and in the promotion of international cooperation. The Institute for Quality Engineering (RKI) and the Department of Quality Technologies (KTK) participate in the implementation of various European Union projects in cooperation with other institutes of the Faculty. For example, below are some of the projects implemented at the institute and the department:

From 2012 to 2014, the RKI with colleagues from FEEM and together with their partners Universidade Católica Portuguesa (Portugal), Centro de Estudos dos Povos e Culturas de Expressão Portuguesa (Portugal), Centro de Formação Profissional Para o Comércio e Afins – CECOFA (Portugal), Fundación Metal Asturias (Spain), Tempo Training & Consulting a.s. – TEMPO (Czech Republic) and SROI Network – Social Return on Investment Network Ltd. (United Kingdom) implemented an Innovation Transfer Project No. 12011-1-PT1-LEO05-08605 “Employability and Skills Anticipation Policies: a Social ROI Approach” of the EU Lifelong Learning Program Leonardo da Vinci. The aim of the project was to assess the return on investment in active employment and vocational training policy and to facilitate the participation of various stakeholders in the analysis of current and future labour market requirements, both at local and regional level and from a sectoral perspective. The results of the project will facilitate reflection on the recognition of employability skills and dissemination of employment solutions at the European, national and local government levels.

From 2015 to 2016, RKI with colleagues from FEEM and together with the Institute of Integrated Business (Macedonia, project coordinator), the University of Pavia (Italy), the University of Ljubljana (Slovenia) and the Higher School of Economics and Culture (Latvia) participated in Erasmus+ Key Action 2 (KA2): “Cooperation for the innovation and the exchange of good practices” in Strategic Partnership project No. 2014-1-MK01-KA203-000275 “Innovative Strategic Partnership for European Higher Education – ISPEHE”. On the basis of the experience of partner organizations, the project created three key innovative components: the Business Education Public Integration Platform (BEP), the Integrated Study Module (SILM) for sharing good practice across Europe, and an international Career Centre.

From 2015 to 2017, together with colleagues from FEEM, RKI participated in the European

Economic Area Financial Mechanism and Norwegian Financial Mechanism Program Project No. NFI/R/2014/006 “EU Policies Impact to the Transformations of the Higher Education and Research System in Norway and Latvia”. The project evaluated the development of higher education and science in Norway and Latvia in the context of European policy documents (Europe 2020, Horizon 2020, Bologna Reform, and Lisbon Strategy).

Since November 2017, RKI has been participating in ERASMUS+ Key Activity 2 (KA2): “Collaboration for Innovation and Good Practice Sharing” in Knowledge Alliances Program Project No: 588315-EPP-1-2017-EU-EPPKA2-KA “Improving management competences on Excellence based Stress avoidance and working towards sustainable organisational development in Europe – IMPRESS”. The project partners are NGO Association of Electronic and Information Technologies in the Basque Country (lead partner); University of Barcelona; Ludwig-Maximilian University of Munich; IBK Management Solutions, Wiesbaden; International Industrial Consulting for SMEs, Frankfurt; NGO Eurofortis, Latvia; NGO Mutual Social Security Cooperation No.2, Bilbao; Waterford Chamber of Commerce, Ireland; Riga Eastern Clinical University Hospital. The project aims to provide training modules and self-assessment tools that enable organizations to identify risk factors and implement preventive practices, individual and organizational solutions to stressors at the organizational, team, and individual employee levels. The approaches developed in the project are based on the key principles of the EFQM model. Currently, the initial results of the project have been integrated into several study programs in separate study courses, for example, Integrated Talent Management, Quality Management, Personnel Management, Fundamentals of Quality Management, Social Responsibility and Business Ethics. The project is currently ongoing and wider implementation of its results is planned for the 2020/2021 academic year.

During the reporting period, the research results of the academic staff of the department have turned into more than 100 publications, including 2 chapters in the scientific encyclopaedia “The SAGE Encyclopaedia of Quality and the Service Economy”, more than 30 publications in scientific journals indexed in SCOPUS and Web of Science databases, more than 40 articles in full-text conference proceedings and over 30 different other publications. Here are given only a few examples of the academic staff involvement in conferences and publications, reviewing journal articles, and conference organizing committees.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The study program has a mechanism for teachers to cooperate with each other, which facilitates the improvement and interconnection of study courses. The improvement of courses takes place on a regular basis, based on the suggestions made by the students and the trends of the development of the industry. Each course is developed with participation of at least two teachers – the courses, which are acquired simultaneously or which must be acquired consecutively, are developed by the responsible teachers in close cooperation. The content of the courses where the study projects are developed is mutually coordinated by the teachers. The main purpose of the cooperation is to ensure the principle “from theory to practice, from the simplest to the complex, from the general to the specific”.

During the implementation of the courses there are regular meetings of the teachers, where they exchange experience on the topics of the courses, as well as develop and improve the study content by mutually agreeing on the topics, focuses, responsibilities and compliance with regulatory requirements. All teachers of a particular course are involved in the process of coordination of the courses, thus ensuring that the topics covered in the study program are constantly improved and updated in cooperation with the professionals of the relevant field.

The study courses consist of thematic blocks of quality management, process management, conformity assessment, integrated management systems and an organization's strategic development and improvement. They are coordinated with each other (see Section 2.2., Figure "Logic of the Study Program Development and Interconnection of Courses").

Various teachers are involved in the implementation of the **thematic block of quality management** – teachers responsible for the study courses, visiting teachers and professionals of the field. Students acquire basic knowledge in quality management, develop a study project, demonstrating their ability to work with information and carry out research. The thematic block of quality management includes a wide range of issues, and therefore, the teachers of all thematic blocks are involved in its development and harmonization. Students acquire knowledge and develop skills and competences in understanding the principles of total quality management, identifying quality management problems and their possible causes, establishing organizational quality management systems, analysing processes and risks related to quality assurance, and selecting and using quality improvement methods. Students gain competence in analysing product and service quality indicators, processes, quality management principles, and understanding of quality management standards and models of excellence. Students apply quality methods, develop competence in analysing quality related situations, identify causes of problems and choose solution methods, present and explain the developed solution.

The content of the study course "Resource and Quality Cost Analysis" covers not only the company's economic aspects but also the financial aspects that students will be able to use when starting and running their own company. Terminology is acquired both in the course "Special English" and in other courses according to the topic learned. The course "CAQ Computer Aided Quality Control" provides an understanding of the types of software and the choice of quality tools for data analysis, statistical processing, visualization of results obtained and their importance in quality assurance and improvement.

In the course "Integrated Management System", students demonstrate knowledge and skills in process identification and application of quality management principles by developing the basic elements of an integrated management system – policy, goals, goal achievement programs, process descriptions, observing the requirements of the chosen integrated management system when developing core elements. In the study course of integrated management system, students work in groups, and on the basis of their practical work experience choose an organization for which an integrated management system is developed. Students demonstrate the ability to evaluate documentation developed by other students. Internal audit of the integrated management system is organized in the form of practical classes, where students apply the principles and elements of conformity assessment to prepare audit questions, to ask them and to evaluate the answers received in relation to the requirements of the selected management system standards. This is one of the program's most important courses, where students integrate and practically demonstrate their competencies.

The **thematic block of process management** is closely linked to the **strategic development of organizations**. Process management includes questions about management and support processes, improvement of production and business processes in the organization, understanding

and monitoring processes, and continuous process improvement. Within the framework of studies, understanding of the preconditions of organization formation, the types, kinds and classification systems of organizations, the processes, the importance of planning and controlling the processes, as well as development of skills in using certain organizational performance improvement methods are ensured. A significant part is devoted to implementation of the organization's planning and control functions in process management. The content consists of four thematically related modules: prerequisites for creating an organization, the planning function and its use in organizational management, the control function and its use in organizational management, methods for development and improvement of the organization's activities.

The topicality of the thematic block is that processes are an organizational component that translates the requirements, needs and wishes of customers and stakeholders into a specific product. The courses have been designed according to current industry requirements and they incorporate the latest methods included in business consulting practices. Students are shown the regularities between the external and internal processes of the company and the impact of their effective management on the company's profit. The main emphasis in the application of methods is on exploring customer values and minimizing or completely eliminating losses during the process execution. Students make calculations assessing the impact of process management on entrepreneurship. The basic principles of process management and improvement, as well as philosophy, different methods and tools are discussed. To ensure successful achievement of learning outcomes, along with theoretical knowledge, practical skills are improved by working in groups on a process improvement project, learning all stages of process optimization in practice. There are several elective courses closely related to the competitiveness of an organization: "Standards in Entrepreneurship", "Integrated Talent Management", "New Product and Process Development Methodology", "Strategy and Change Management". Although each of these courses uses different elements of the organisation's operations, students in all courses acquire the skill of selecting those improvement solutions and/or eliminating distractions to make the organization work more efficiently.

For example, during the reporting period, BEA board members and members representing different sectors of the national economy in Latvia participated in the implementation of the study course "Process Management Methods": Ginta Grandāne, Lean.lv representative in Latvia and co-founder and board member of Business Efficiency Association; Kristīne Sarkane, finance, management and strategy professional; Vladislavs Sorokins, process improvement manager at Solvay Business Services Latvia Ltd; Uldis Piekuss, head of sales unit of JSC Virši-A; Ilona Griboņika, excellence specialist at JELD-WEN Latvia Ltd; Daiga Leimane, industrial efficiency improvement specialist at Hanzas Electronics; Jānis Freibergs, assistant factory manager at Brabantia Latvia Ltd. The direct influence of the industry representatives also enriches the experience of other teachers involved in the study process. The possibilities and ways of using theory and practice demonstrate the indivisibility of both approaches in organizational development.

The course "Quality Improvement Project Management" develops understanding of project management as an integral part of organizational quality management. Project management is relevant and topical to any organization, and today it is viewed not only as a methodology for achieving goals, but also as an important business process. An effectively implemented project management methodology is an essential prerequisite for the growth and stability of an organization's quality management. During the course students acquire understanding of project management principles and methods and develop project management skills.

Within the framework of the course "Social Responsibility and Business Ethics" students develop group projects on relevant topics of business ethics and social responsibility, which envisages additional studies of the recommended literature, summarising, analysing and evaluating statistical

information and material published in the media. Students analyse and evaluate cases, make decisions and justify them, prepare analysis and solution of moral conflict situations and evaluation of the social responsibility strategy of the selected organization, as well as proposals for its improvement, at the end the project results are presented and students participate in discussions. Promoting academic honesty and creating an atmosphere of mutual respect in the classes is one of the cornerstones of the course “Social Responsibility and Business Ethics”. During the course, students develop group projects that include individual and group assessment of student cooperation as a criterion for evaluation. Within the framework of the course, students’ personal development assessment and self-evaluation skills are improved as much as possible. Guest lecturers from the industry also participate in the course every year. The course is linked to all other courses, it integrates the knowledge gained in quality and process management, risk management and conformity assessment, as well as forms the basis for learning the strategy and integrated management system.

Within the **thematic block of conformity assessment**, students demonstrate their knowledge and skills in product, process, person and management system conformity assessment procedures – testing, verification, certification, standardization and accreditation; they evaluate procedure descriptions in accordance with the requirements of international standards and normative acts, study a particular product conformity assessment in accordance with the requirements of the conformity assessment module. Students analyse conformity assessments and evaluate the information obtained to make suggestions for possible measures to improve conformity assessment. Guest lecturers from the industry participate in the course every year. The course is related to all other study courses integrating the knowledge acquired in quality management, process management methods, and it also forms the basis for the study project in conformity assessment.

The study course “Risk Analysis” is conducted by a very experienced teacher and practitioner. During the course, the students get acquainted with the basic concepts of risk, risk assessment and management procedure, risk assessment methods, their application in analysing industrial, environmental and work environment risks. Students acquire skills in practical application of risk assessment methods and understanding of the applicability of the results obtained. In order to ensure a link between the thematic blocks of risk management and quality management, one research included in the quality management study project is carried out on issues related to risk analysis. The teacher, who supervises the development of the study project in quality management, has attended a course of risk analysis to gain a deeper understanding and to coordinate the topics of both study courses.

In the study course “**Contemporary Research Methods in Quality Management**”, students have the opportunity to acquire in-depth knowledge of both general research methods and methods in quality management, thus students are provided with the necessary knowledge to carry out research. Within the framework of the study course, students carry out their own research in the field of quality management, developing their research competencies. The skills and knowledge acquired during the course serve as the basis for the development of their master’s theses. Guest lecturers are invited to conduct advanced quality research on some issues.

**The study projects** in quality management and conformity assessment are interrelated and consecutively complement each other, enhancing students’ understanding and deepening their knowledge in several important areas. The teachers of both study courses work closely together, incl. helping students to choose study project topics in quality management and conformity assessment that would complement each other and fit into their master’s theses. An obligatory part of all study projects is the theoretical part, where students acquire skills of research work and develop the skills necessary for writing a master’s thesis. In the practical part of the study project,

issues of the respective field are analysed at the level of understanding and application – by learning about improvement, control, supervision, compliance, evaluation. During the development of the study project, students do in-depth research on a specific problem related to product, process quality management, quality and conformity assessment, integrated management system, and develop proposals for possible solutions. Within the framework of the study projects, students also acquire the skill of analysing scientific publications, as well as requirements of international standards and normative acts in order to develop conclusions and improvement solutions for specific problems related to the research field, thus developing their research skills.

All study courses have three tasks: to develop students' ability to apply normative regulation, to acquire and practically try development solutions, as well as to acquire professional terminology, incl. in a foreign language. The program establishes a methodological framework for elaboration of final theses in professional studies in order to promote students' analytical and critical thinking, ability to understand regularities and prepare realistic development solutions for companies.

Based on the number of academic staff members elected by RTU who have a permanent job, the ratio of students and teachers is 1 to 3. As the study program involves a significant number of professionals of the field, after including these teachers in the calculations the student-teacher ratio is 2.2 to 1.

Taking into account that the study program consists of academic staff members from different structural units of RTU, as well as the fact that separate courses are acquired together with students of other programs, the ratio of students and teachers should be considered in the context of the study direction and the Faculty, thus in the master's study programs the average student-teacher ratio is 10 to 1.

# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	5.pielikums Statistikas dati _ Appendix 5 Statistical data.pdf	5.pielikums Statistikas dati _ Appendix 5 Statistical data.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 compliance with national standard.pdf	6.pielikums_Atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Appendix 7 compliance with professional standard Quality Manager.pdf	7.pielikums_Atbilstība profesijas standartam Kvalitātes vadītājs.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8 APPENDIX Mapping Master prgram EN.pdf	8 PIELIKUMS Maģistra programmas kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 Studies plan.pdf	9.pielikums_Studiju programmas plāns.pdf
Descriptions of the study courses/ modules	Maģistru kursj _EN.zip	Maģistru kursj _LV.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploms profesionālais maģistrs Kvalitātes vadība.pdf	Diploms profesionālais maģistrs Kvalitātes vadība.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās par studiju turpināšanas iespējām.pdf	Vienošanās par studiju turpināšanas iespējām.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	02000-2.2.1-e_11.edoc	02000-2.2.1-e_11.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	AGREEMENT for studies at RTU.pdf	Studiju līguma paraugs RTU_LV.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		



# Creative Industries

Title of the higher education institution	<i>Management, Administration and Management of Real Property</i>
ProcedureStudyProgram.Name	<i>Creative Industries</i>
Education classification code	<i>43217</i>
Type of the study programme	<i>Academic bachelor study programme</i>
Name of the study programme director	<i>Deniss</i>
Surname of the study programme director	<i>Ščeulovs</i>
E-mail of the study programme director	<i>Deniss.Sceulovs@rtu.lv</i>
Title of the study programme director	<i>Asoc. profesors, Dr. oec.</i>
Phone of the study programme director	<i>67608625</i>
Goal of the study programme	<p><i>To provide students with the opportunity to obtain theoretical and professional knowledge in creative industries, having obtained the academic Bachelor's degree.</i></p> <p><i>The general aim is to educate and train creative and motivated interdisciplinary specialists for work in creative industries at different industry enterprises, in different forms of business, with an in-depth understanding of cultural and artistic processes and a desire to promote development of the Latvian national economy, culture and creative industries.</i></p> <p><i>The aim of the program is to provide students with the opportunity to acquire theoretical and practical knowledge in creative industries and train versatile and competitive professionals in creative industries. The program combines artistic and business competences to promote the capabilities of the program graduates to create innovative products and services, creative content and experience that would facilitate their ability to operate in the modern changing and challenging business environment.</i></p>

Tasks of the study programme	<ol style="list-style-type: none"> <li>1. To provide students with cross-disciplinary knowledge in the fields of culture, arts and entrepreneurship and creativity, to develop specialist skills and competencies in line with the labor market requirements.</li> <li>2. To ensure a competitive second-level academic higher education in line with international standards and prepare students for practical work, to strengthen the employer and employee competencies of students by motivating them to become employers, to establish start-ups.</li> <li>3. To promote an in-depth understanding of cultural and artistic processes, personal growth and creativity, the ability to see business potential in creative practices and to develop the motivation of students to work in the creative industries.</li> <li>4. To develop entrepreneurial skills, job planning and presentation skills, collaborative and communication skills, involving students in sectoral activities and businesses during studies.</li> <li>5. To develop and promote the use of research skills, to facilitate cooperation between the academic staff and students in the area of scientific research and practical exploitation of the results obtained in accordance with international standards and trends.</li> <li>6. To promote and develop international student and staff mobility and participation in the projects.</li> <li>7. To promote interest in further education and development, advancement of academic and professional knowledge.</li> </ol>
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Results of the study programme	<p>As a result of mastering the study program, the graduates:</p> <ol style="list-style-type: none"> <li>1. Are able to evaluate cultural and artistic values, understands processes and potential of the cultural heritage and contemporary culture, the specifics of operation of cultural organizations;</li> <li>2. Are able to integrate in the business environment, create jobs for themselves, establish start-ups, understand economic regularities, are competent in the economic performance of enterprises;</li> <li>3. Understand the specifics of creative industries, their economic, political, social and legal context, understand the needs of different areas of creative industries and factors affecting the work environment of creative companies in Latvia;</li> <li>4. Are capable of independently obtaining, selecting, analyzing information, applying research methods and professional terminology of creative industries in Latvian and a foreign language, are able to present the results of their research and substantiate their opinion;</li> <li>5. Are capable of developing innovative, artistic, competitive products and services according to the needs of the customer and good design principles, are competent in models of funding for cultural and creative industries;</li> <li>6. Are able to offer goods and services to relevant market audiences by using modern communication channels, information and communication technologies;</li> <li>7. Are capable of applying the obtained knowledge in practice, in different areas of creative industries, analyzing business performance, understanding the interdisciplinary nature of creative industries; are able to cooperate, participate in teamwork, acting ethically, socially responsibly and decisively.</li> </ol>
Final examination upon the completion of the study programme	Bachelor Thesis

## Study programme forms

### Full time studies - 3 years - latvian

Study type and form	Full time studies
Duration in full years	3
Duration in month	0
Language	latvian
Amount (CP)	120
Admission requirements (in English)	General or vocational secondary education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Bachelor of Arts in Creative Industries
Qualification to be obtained (in english)	-

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, RĪGA, LV-1050

### **III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)**

#### **1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction**

In accordance with 02.08.2017. license No. 04051-173 for the Riga Technical University for the academic bachelor study program "Creative Industries" the following changes in the parameters are made for the study program:

- the form of study program implementation - from full-time and part-time studies to full-time studies;
- language of study program implementation - from Latvian and English to Latvian.

#### **1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.**

Currently, there is a big interest to the program in the Latvian society that is demonstrated by the number of the received applications (197 applications in 2017, 164 in 2018 and 141 in 2019) and the students enrolled. This is influenced by several factors: firstly, the content and novelty of the program; secondly, positive references of the students on the content of the program, including in the public area, that promotes good publicity for the program; thirdly, the interdisciplinarity, as the program provides basic and specialized knowledge, skills and professional competence in creative industries, combined them with profound understanding of culture and entrepreneurship, as well as provides basic knowledge and skills in the specifics of different creative industries, creation of new products in the following blocks of competencies: Creative Industries and their Branches, Arts and Culture, Business and Economics, Creative Thinking and Technologies, Marketing and Communication, Research and Internship.

Regardless of a big interest of school graduates in the program, both universities have agreed to admit not more than 50 students every year, thus ensuring high quality of the study processes and efficient use of the university infrastructure. (

See Appendix 5 – Statistical data on the students enrolled in the study program “Creative Industries”.

#### **1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.**

Additional knowledge obtained within the program about creative industry activities, as well as the developed logical, business and innovation-focused thinking, allow graduates to participate in entrepreneurship and business-related employment sector, allowing them to create jobs for themselves, establish start-ups, develop their business ideas both in Latvia and abroad.

Study program graduates will be the specialists capable to offer versatile and innovative solutions. Graduates will be able to work in creative industries, culture, arts and business, and the related industries, will be capable to design new products and services, establish companies, participate in start-up businesses, work at creative industry companies and culture organizations, organize projects and events, support career development of creative people by promoting the development of cultural and creative industries in different sectors and cooperation between the sectors. Program graduates will also be able to carry out research in the sector to raise awareness of the importance of creative industries in the society.

Creative industries are a relatively new area in the national economy development playing a vital role in boosting the innovation potential of other sectors of economy. Therefore, evaluating the opportunities of the program graduates, one should focus not only on servicing the existing labor market demand, but also on training the specialists who can contribute to the development of creative industries and export capacity increase. The joint academic Bachelor study program of LAC and RTU "Creative Industries" is designed in accordance with the National Development Plan of Latvia for 2014-2020 (NDP, 2012), which provides for both increasing the share of creative industries exports from 1.09% in 2009 to 1.6% in 2020 and increasing the proportion of enterprises operating in culture and creative industries in total number of enterprises from 6% in 2009 to 7.5% in 2020. The largest growth of the number of start-ups is observed exactly in creative industries. Such enterprises are established by young people (the so-called Net and Next generations) who have different skills and knowledge in business, culture and other areas. Moreover, the life cycle and functioning of start-ups differ from classical enterprises and require creative thinking, flexibility and a new business approach from their founders, owners and employees – these can be developed by students at the study program "Creative Industries".

### **III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)**

**2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.**

The joint LAC and RTU academic Bachelor study program "Creative Industries" is developed in accordance with the priorities for education, culture and business development laid down in the national development planning documents, which emphasize the importance of creativity,

cooperation between universities and efficient use of resources. The role of creativity in promoting innovation and significance of creative industry development for the national economy are highlighted in both EU and national development planning documents. These ideas are specifically highlighted in the mid-term development planning documents for the planning period of 2014 - 2020.

The report of the European Commission on the quality of the education offered by European higher education institutions states that higher education institutions should promote a cross-disciplinary, interdisciplinary and transdisciplinary approach to the acquisition, training and evaluation of teaching materials. They should help students expand their awareness, boost their capacity in business and creative thinking (*Report to the EC on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions, 2013*).

The National Development Plan of Latvia for 2014-2020 (NDP, 2012), which is the mid-term development planning document, provides that in the globalized and digitalized world, the competitiveness of countries is increasingly determined by creative ideas transferred to innovative products and services, that Latvian citizens have developed creative business activities due to widely available new technologies and adult education programs. They ensure jobs for themselves and others and are capable of competing successfully on the world's market (NAP2020, p. 8). Education and training of specialists in creative industries will contribute to the first activity field of NAP2020 - "Highly efficient and export-sustainable production and internationally competitive services" and its Target 3 - "Development of commercialized creative industries" and the underlying Objective (10) to support the creative industry in order to develop culture-based innovations and promote cultural, scientific and business cooperation by supporting the export capacity of business in creative industries (including the audio-visual sector) and promoting international competitiveness of the state.

The LAC and RTU joint program is also developed in accordance with the education planning document the Guidelines for the Development of Education for 2014-2020, which provides that the national policy in higher education will prioritize support for measures that promote closer cooperation in the development and implementation of the joint programs, meeting the labor market demands towards study curricula and concentration of resources. With regards to the competitiveness of education, the guidelines provide for the consolidation of higher education resources and closer integration of the study programs with the industry. Support is expressed for the consolidation of study programs by forming joint study programs (the Guidelines for the Development of Education for 2014-2020, 2013). The LAC and RTU joint program complies with this condition, as resources of both universities are united, the program is developed by reacting to the demand of the industry and it will be implemented in close connection with the industry, as guest lecturers representing the industry are attracted in the program implementation, students will be provided with two internships, and industry representatives have been involved in development of the study program.

The program also forms a hierarchical link with the Guidelines for Science, Technology Development and Innovation for 2014-2020, the basic principles and eight sub-goals of science, technology and innovation development policies and all four activity areas stipulated by the document.

Besides, the Smart Specialization Strategy (SSS) provides that one of the issues is the insufficient use of creative and intellectual capital in creating innovations (Informative Report on the Development of the Smart Specialization Strategy, 2013); therefore, special attention in the study program is devoted to promotion of innovative capabilities of students. SSS highlights as one of the priorities the wider use of non-technological innovations and the potential of Latvia's creative

industry in the manufacturing of products and rendering of services with a higher added value in the national economy sectors (Informative Report on the Development of the Smart Specialization Strategy, 2013).

The development of creative industries is also in the focus of attention of the chief cultural policy-planning document of the state (the Ministry of Culture) – the Cultural Policy Guidelines 2014-2020 “Creative Latvia”. The second priority of these Guidelines is creativity in lifelong education and cultural education oriented towards labor market. In addition, in the context of second priority tasks, it is noted that the creative potential of cultural education universities has not been fully exploited for the development of innovations, including the insufficient use of cooperation opportunities with other cultural and technical universities and entrepreneurs in the development of innovative cross-school and cross-sectoral programs and practices. One of the limiting factors for the transfer of results of innovation and creative experiments in practical applications is the lack of technological innovation potential of the technical base, and it is therefore important to develop closer cooperation between cultural and technical universities within the framework of interdisciplinary projects and programs (“Creative Latvia”, 2013). The LAC and RTU program “Creative Industries” is developed to promote the cross-university cooperation and make use of the potential of both Latvian Academy of Culture and Riga Technical University. It is developed in compliance with the priorities set in the planning documents of different levels and different sectors.

The research “Analytical Description of the Ecosystem of Social Science and Humanities (SSH)” published in late 2016 also states that social sciences and humanities play an important role in the SSS implementation and that the resources of these branches should be used more intensively. The research provides that knowledge of SSH is significant in creation of any innovative product at enterprises, contributing up to 50% to innovation. The following key competences of modern education are rooted in the SSH sphere: analytical and critical thinking, communication (including intercultural), decision-making, combining the specific and wider context, creativity, the ability to operate independently and in a team. Innovation capacity is critical for the ability to interpret, communicate and connect different perspectives, and find solutions beyond a normal practice. This is particularly facilitated by humanities and arts, their connection with other sectors, and the contribution of SSH to the improvement of the education system (Analytical Description of the Ecosystem of Social Science and Humanities (SSH), 2016). The study refers to the need for professionals with hybrid skills – one of the objectives of the joint program of LAC and RTU is to develop human resources that meet this demand.

Study course curriculum is regularly updated in line with industry, labor market and scientific development tendencies, as the academic staff regularly advance their qualification by participating in various professional, relevant sectoral seminars and activities. Moreover, the academic staff conducts research in the respective fields, using the validated study results in their study courses.

**2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.**

The study program provides basic and specialized knowledge, skills and professional competence in creative industries, combining deeper cultural and entrepreneurial awareness, as well as basic knowledge and skills in specifics of different creative industries, creating new products, ensuring a pool of knowledge, skills and competences of students in line with the aim of the program.

**The curriculum of the program is made of seven competence blocks:**

Within the framework of the **block of creative industries and their sectors**, theoretical and political aspects of creative industries are studied. Students get familiar with the multidimensional nature of the concept of creativity, understand the role of creativity in the creation of innovative products and entrepreneurship and study profoundly the specific nature of activities and support mechanisms of different creative industries.

Within the framework of the **arts and culture block**, students learn the history and modern development of visual arts, literature, stage art and audio-visual art, which contributes to understanding of the possibilities of exploiting the cultural sector as a source of creativity, including acquisition of the courses considering the basic regularities of arts and culture, such as art anthropology and cultural heritage. The block also provides training in cultural management and cultural policies.

The **entrepreneurship and economics block** provides understanding of business and economic regularities. Students learn a full-cycle business process based on the market needs, starting with incorporation of a company, which also includes the knowledge of different legal norms and procedures, management and development of a company, including management of human resources, leadership, corporate finance and accounting issues. Students study the types of enterprises, business support opportunities, business models, philosophy and operational principles of start-ups and funding models.

The **creative thinking and technology block** provides students with creative and visual skills, design thinking, problem-solving skills, team work and collaboration capabilities, public speech skills, reasoning skills, a culture of applied writing and verbal communication. In addition, competence in the development of new products and technology transfer is developed and general innovation skills are promoted, while LAC and RTU students work together on the development of innovative products.

The **marketing and communications block** is focused on the development of skills to promote modern products on the market, knowledge of e-commerce, development of public relations skills, the use of social networks in promoting organization and popularization of business activities and marketing communications. Students learn how to develop a marketing plan by making calculations for determining the market capacity and planning the marketing activities, identifying the demand and sales and planning product development.

Within the framework of the **research block**, students learn the fundamentals of research that prepare students for the development and viva of their Bachelor thesis and promote their academic writing and communication skills. As part of the block, students become familiar with a variety of research methods used in academic research, marketing and market research, as well as research on activities of enterprises and organizations.

Within the framework of the **internship block**, students undergo two internships, one of which is planned at a creative industry enterprise and the other – at a cultural organization or project involved in business management and cultural project management. Both internships allow getting familiar with the specifics of cultural and creative industry sector, allowing using the theoretical knowledge obtained within other blocks of competencies and developing students' practical skills by applying them in a real work environment. The internship will also allow students to expand their



contact network among the industry professionals. Students may have their internship at both their own selected organizations and enterprises and the ones suggested by LAC and RTU.

**2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The following study methods used in implementation of the study program:

Lectures	Theoretical issues are presented to students, complemented with practical examples, visual materials and statistical data; during lectures, the academic staff use technical means: multimedia projectors, computers, whiteboards and other auxiliary devices. Lectures in most courses focus on the creative participation of students in the process of obtaining knowledge.
Seminars	Supplementing and refinement of the theoretical and practical knowledge, where reference materials, artworks and theoretical articles are analyzed, and creative tasks are performed. Seminars advance student skills to conduct independent analysis of information and contribute to the process of acquiring knowledge and skills.
Individual tasks	Independently performed tasks, study of the theoretical literature and the development of topics related to the areas of study, presentation of reports, business games.
Practical tasks	Exercises in the solution of practical situations, information analysis, development and presentation of cultural projects, organization of cultural events, studying and analyzing specific texts and their structural features, graphic design tasks, planning of tours and creation of booklets, etc.
Group work	Promote students' skills to cooperate and work in a group, develop skills in organization and implementation of joint work, strengthen the students' ability to justify and substantiate their individual opinions in a collective decision.
Assessment and tests	Regular testing of knowledge to verify the understanding of the topics learned and the management of the terminology required; tests are run both with and without the use of additional material by students; tests may be conducted either during a part of the class or the entire class.
Laboratory works	Laboratory works are done in a computer room. Students perform practical tasks individually or in teams. The results and the knowledge are assessed in different ways – in the form of discussions or by evaluating the specific tasks in accordance with the criteria known to students in advance.

Development of innovative products	Students develop products in compliance with the study course methodology. Product development stages are interrelated, they start with definition of a problem, testing, etc.; finally, at the end of the course, students develop a product prototype and a product description folder that includes calculations, research results, specifications, drawings, etc. Students work in teams that are formed based on the test results. Each stage is evaluated and students have an opportunity to return to the previous stage and improve if the results are not satisfactory. The results are either peer assessed, since the quality of the next stage depends on the previous one, or by the member of academic staff.
Term paper	An independent research work performed by students during the second year of studies, with an objective to define an independent research interest, develop practical skills and gain experience in research.

The usage and division of the study methods is adapted for the specific needs of each study course implementation. For example, in addition to the study methods described above, there are **practical classes** for the course of lectures “Public Speech and the Culture of Latvian Language”, which are essential for the acquisition of the study course.

In addition to the study program, students are engaged in **extra-curricular events** of both universities that complement the knowledge and skills of students and improve their experience in planning and implementation.

Different methods are used within the RTU study courses, for example, within the courses “**Business Mathematics and Statistics**” and “**New Product Design**”, the so-called “Divide and rule!” method is applied, when students learn to divide a complex problem into pieces (parts) in order to solve them separately.

The training principles applied within the study courses “**Entrepreneurship**” and “**New Product Design**” are theoretical guidelines based on the requirements of the training process, the fulfilment of which ensures the necessary quality of the training process. The implementation of the study courses is based on setting up project groups (with 4-6 participants in a project group) that work on a business idea or a practical project throughout the entire course, both during the classes and beyond them. During a study course, the fulfilled tasks, idea development and creation and presentation of a prototype are assessed. The final assessment of the course is determined as follows: 70% are formed by the work quality of the tasks fulfilled during the study process and 30% by the business idea development and the final presentation of the prototype. The assessment methods include the final performance, the work process portfolio, case studies, tests and tasks performed during the lectures, self-assessment, observation of the academic staff (for example, listening to the discussions of a student group), feedback on the understanding of the essence of the work to be performed.

The study course “**Business and Labour Law**” envisages working in groups – application of the acquired theory to solve issues (case studies) after each topic. As part of the group work, students discuss the applicable legal frameworks for dealing with a practical example and consider possible solution options. The reasoning and arguments developed by the group are of particular importance in the assessment of the group work. The ability of students to apply their acquired knowledge in practice is assessed by recognizing the theoretical basis underlying a particular practical example, selecting the necessary applicable regulatory enactment. A test – a theoretical test that allows a student to select appropriate solutions for the raised theoretical issue by applying logic and analytical thinking. A theoretical test generates feedback and allows the theoretical knowledge of each student to be assessed successively throughout the entire study. Summary of law cases and judicial studies raise awareness of the theoretical aspects of the considered issue. This contributes to profound understanding of the relationship between theory and practice. As part of the course,

students publicly present a case study, exploring comprehensively the theoretical regulation, the doctrine and the case law, involving other students in the problem discussion.

The study course **“Information Technology and Business Intelligence”** is assessed by using the summary method, which consists of assessment of home works, tests and a report. The following should be submitted during the term: 16 home works – 40% of the term grade; 2 tests and a report – 60% of the grade. At the examination, students can improve the grades obtained during the term. The goal of the home works is to motivate students to review the considered materials on a regular basis. The goal of a test is to evaluate students’ capability to apply the obtained knowledge and skills. A report is a group work, where students are encouraged to do literature research on modern IT development and offer a creative view of the development tendencies. Frequent home works and tests allow reacting to changes in the perception of materials by students and adjusting the degree of difficulty according to the level of students. At the end of each home work, students complete an anonymous questionnaire that can give feedback on the acquired materials and thus adjust the activities of the academic staff.

The assessment system of the study course **“Accounting and Finance”** is formed by the academic staff of the respective study course in accordance with the number of credit points and hours of the study course. The assessment system is provided in the study course program. Principal methods of the study course assessment system are a test and examination: · test – an assessment method for determining the volume of theoretical knowledge and skills obtained by students during a study course; a test includes questions and tasks that encompass all topics of the study course; · examination – an assessment method for determining the theoretical knowledge and skills obtained by students during a study course. In the process of studies, students perform tasks and practical tasks concerning the respective topic of the study course, having received an assessment – tested, which is a compulsory precondition for being admitted to passing further tests and the examination. When required, seminars conducted by the academic staff are held, and students discuss the independently studied theoretical topics.

Within the study course **“Economics”**, different study implementation methods are used, both traditional (such as delivering lectures for the knowledge transfer, solution of tasks to consolidate the knowledge and tests to check the knowledge) and interactive ones. For example, when solving tasks, students are offered to join their efforts and solve the tasks in small groups, and, after a specified time, to check the results jointly and discuss typical errors or unclear points. Depending on the level of preparedness of the students, tasks of increased complexity are also offered. In addition to undertaking the study course, students need to find, select and process statistical data on key macroeconomic indicators by working in groups and sharing their responsibilities among themselves, in order to characterize and compare economic situation of three countries. In such a case, based on the theoretical information acquired at the lectures and solution of the standard tasks at practical classes, students are able to apply their knowledge in practice. Moreover, when conducting such an analysis (usually using the *Microsoft Word* or *Power Point* format), students learn to present the materials in conformity with the RTU FEEM requirements. The assessment criteria are published in advance in the ORTUS system. For the final evaluation, a complex assessment system is used within the study course – the final grade is formed of several components and, as a result, students working during the term already affect their final grade. To promote classroom attendance and ensure continuous testing of the knowledge (as this also allows the academic staff to be aware of the level of knowledge of the students), every 2<sup>nd</sup>-3<sup>rd</sup> class students can earn additional points by solving small tasks and analyzing situations on the considered topic. A small percentage of the points earned during the term is added to the final grade for the course. By considering that the deadlines for submitting individual / group / home works are known to students, in the event a student does not arrive to a class due to a justified

reason, s/he can submit the work in due time in the ORTUS system, in order to obtain points / a grade for it. By the end of the term, prior to the examination tutorials, students are offered to post their questions in the shared document (usually by using the *Docs Google* tool) to which they would like to get an answer or explanation before the examination. An answer can be provided not only by the academic staff, but also by other students.

The study course **“Corporate Social Responsibility and Business Ethics”** is designed in such a way as to demonstrate the development and importance of social responsibility (SR) in Latvia and the world and to research the public views on the social responsibility of organizations by analyzing the cases of moral conflict. The course aims to display business ethics as a cross-disciplinary academic field, provide insight into business-related ethical challenges and present a modern approach to addressing business-related challenges. The course includes acquisition of the theoretical knowledge of business ethics, value orientation, SR valuation, group dynamics theory and develops appropriate practical skills in addressing ethical challenges and implementing a socially responsible strategy within an organization.

As part of the course, a project work on relevant topics of business ethics and SR is developed, which requires additional collection, analysis and assessment of the recommended literature, statistical information and materials published in mass media. In their project work, students analyze and evaluate situations, justify and make decisions, conduct analysis of the moral conflict situation and its solution and assess the SR strategy of the chosen organization and make proposals for its improvement. At the end of the course, the results of the project work are presented and students participate in the discussions. The project work is organized in groups (3-4 students). In order for students to be able to describe theories and principles of business ethics, to be able to apply the acquired knowledge in making moral decisions and to develop different solutions for typical business environment situations, the following methods are used: case studies – ethical or unethical behavior and moral conflicts in the business environment, presentation of results and participation in discussions, an examination work, a group project.

Students should understand trade-offs an organization will have to face in order to combine and simultaneously implement its “civil” (social) role and commercial activity, students are able to transform these trade-offs into opportunities for both organization and society by using the following methods: a group project – an analysis of a real business situation (of last three years), presentation of results and an examination work to assess the ability of students to justify the decisions taken and understand the benefits of implementation of the SR strategy. The ability of students to use the acquired knowledge and skills in business-related decision-making are analyzed and evaluated with the help of case studies – SR in the operation of an enterprise. Presentation of results and participation in discussions, examination work and a group project. Students are familiar with the main tools for building an environment of mutual trust and respect within an organization, implement a socially responsible activity strategy and inform society about it. In order to activate and test this ability students implement a group project – an analysis and assessment of an internal environment of a company operating in Latvia and its SR strategy. Presentation of results.

**2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.**

Within the framework of the program, two internships are anticipated for students, one of which is planned at a creative industry enterprise and the other – at a cultural organization or project involved in business management and cultural project management. Both internships allow students to get familiar with the specifics of cultural and creative industry sector, using the theoretical knowledge obtained from other competency blocks and developing practical skills by applying them in a real work environment. The internship will also allow students to expand their contact network among industry professionals. Students may have their internship at both organizations and enterprises selected on their own and the ones suggested by LAC and RTU. At RTU, students have to perform the following tasks during their internship:

- To describe the organization as a whole (its structure, development, etc.) and assess the business model and sustainability of the organization by using one of the well-established scientific theories. In the event the internship takes place in a creative department of the organization, a brief description of the whole organization must be provided, with a detailed description of the department concerned. The analysis to be performed must be based on the data and/or calculations that confirm the trainee's conclusions.
- To identify a potential problem/-s or discrepancies of the organization (or its creative department), substantiating them with an analysis of the key financial performance indicators (data and information).

Performing these tasks, students will demonstrate the ability to establish and manage their enterprise, focus on business models and understand the key performance indicators of their business. Students should be able to independently plan and use resources in a rational way to achieve strategic aims and assess the effectiveness of their activities. In practice, it also helps achieve the result: being able to act and think creatively, apply methods, argue, present one's ideas orally and in writing. During the internship, students should be able to act ethically, understand the principles of sustainable and socially responsible conduct in business – this is another learning outcome of the program. Carrying out the internship tasks, students should also be able to act in compliance with the regulatory enactments governing the protection of business and intellectual property while working with the company information and developing their internship report. Students must be able to join the staff and work in a team, collaborate collegially and manage the basic principles of business etiquette, which is one of the learning outcomes of the program. Students must be able to use modern information technologies independently to address business, marketing and communication issues, which they will also demonstrate during the internship.

## **2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.**

Taking into consideration that the program started only in September 2017, the graduate papers have not yet been developed. There is the Regulation on the Development of Term and Bachelor Papers developed for the joint academic Bachelor study program “Creative Industries” of the Latvian Academy of Culture and Riga Technical University, which sets the requirements to the content, the viva procedure and other issues (See Annex – Nolikums par kursa un bakalaura darba izstrādi). See additionally Appendices 6, 8 and 9.

An application (see Appendix X) has been elaborated for applying for the Bachelor Thesis, which is

filled in by the student and indicates the reasons for the topicality and choice of the topic; the research problem, the main research question. In order to substantiate the research topic, the student must also carry out literature research and identify at least 10 sources of literature (books and / or academic articles) to substantiate the research topic. The application must also state the desired scientific supervisor. Henceforth the application will be considered at a program board meeting with the program directors and board members of both universities. During the meeting, the commission shall decide on the approval of the topic and the supervisors (according to the requirements and formulated applications) (the bachelor has two scientific supervisors - one from the LKA and one from RTU). For topics and applications with inadequate substantiation of the topic, the board shall provide the student with comments on the deficiencies, request corrections and resubmit.

The themes of the Bachelor Thesis submitted by 34 students of the 3rd year reflect the problems and current issues in the Creative Industry and Culture sector.

Analyzing the topics they can be grouped into several groups: topics related to the human resources management of the creative and cultural industries, for example, "The role of management and cultural leadership in the development of the non-governmental theater industry. The case of Gertrudes Street Theater and the Quadrifron", "The Importance of Employment Form in the Efficiency of Work in the Creative Industries" and so on. Another block is consist of topics related to and sustainable aspects of the creative industries, such as "Event Tourism Sustainability. Example of the Baltic States", "Prerequisites for the Sustainable Development of Music Festivals in the Creative Industries Sector. Glastonbury Festival and Positivus Festival Analysis ", "Zero waste "as a Marketing Tool for Creative Business Development"" etc. The topics of several works are related to creative industries and their management problems, eg "Comparison of TV and Film Documentary Production Resources", "Risk Management" concerts in Latvia ", "Own-initiative strategies for NGO activities. FREE RIGA example" etc. One more block can be identified related to issues of creative organizations branding, marketing, advertising and sales, communication, including the electronic environment, such as "Importance of life-cycle events in guest house marketing", "Importance of music and sound Development and Communication", "Communication of Latvian Museums on Social Networks to Attract Young Audiences ", "Using Digital Marketing Tools to Build Publicity for the Latvian Film Century", "Brand Refreshing as a Successful Brand Management Technique in Creative Industries", etc. There are a number of works related to the creative and cultural aspects of tourism and the urban environment, such as "The Influence of the City Brand and Synergies with Local Businesses and Organizations: The Case of Valmiera", "The Importance of Cultural Tourism in Concert Hall Development. Amber Concert Hall Example ", etc. As another block, topics related to innovation in creative industries can be highlighted, such as "Innovation potential in creative industries companies in Latvia" etc.

As can be seen, the bachelor's thesis topics are extensive and qualitatively reflect realistic and topical issues and issues in the creative and cultural sector.

## **2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.**

Student satisfaction with the quality of education provided at the study program is monitored by term assessment polling organized by LAC. Survey results are summarized, analyzed and submitted

to the Head of the Study Department, Vice-Rectors, Heads of Departments and the Rector, in order to introduce the necessary improvements and changes. Additional information can also be obtained during informal conversations with students during the term, where problems occurring in the course of studies are identified. Such are regularly carried out within the Creative Industries program, and students discuss the study process with program directors.

The term assessment takes place with the help of polling at the end of each study semester (during the session). Students are requested to provide their assessment of the lecture courses delivered in the relevant term and their academic staff by assessing the quality of each study course and the lecturer, as well as the conformity with the chosen sub-program or major. The data are analyzed separately about each lecturer for internal usage, but it is also possible to get an overall average assessment on each term. The results of the 2018/2019 academic year are available on the LAC web page:

[https://static.lka.edu.lv/media/cms\\_page\\_media/898/2018\\_2019%20m.g.%20rudens%20semestris\\_doc.novertejums.pdf](https://static.lka.edu.lv/media/cms_page_media/898/2018_2019%20m.g.%20rudens%20semestris_doc.novertejums.pdf) (about LAC in general).

In general, in accordance with the term assessment polling results, the quality improvements of the study process have been introduced into the Creative Industries program such as meetings with the academic staff, particularization of the course curricula, changes to the program.

To clarify opinions of the graduates on the education quality, polling of the graduates of the last three years was performed, with a request to assess the obtained education and its conformity to the work performed by the respondents, as well as its impact. As the Creative Industries program has been implemented only since academic year 2017/2018, it has no graduates yet and, respectively, there are no polling data.

With regards to the labor market, there are no data available, as there have been no graduates of the program. Still, a positive tendency is demonstrated by the fact that, following the internship included in the study program, several students of the program have been offered to continue working as salaried employees:

- The 2017 student, following her internship in autumn 2018, worked for a year as a salaried employee in the “Darbavieta ” joint creativity room;
- The 2017 student, following her internship in the K57 Room, continued working there as a project manager;
- The 2017 student continued cooperation with the creative advertising agency BDF LV, where the student worked as a *copywriter* during her internship, and continues preparing blog articles regularly upon expiry of the internship;
- The 2017 student, following her internship at the PR agency *Ethos*, continued the started work at *TechChill* and *TechHub* With account of her internship period, she worked from September 2017 to April 2019.
- The 2018 student, following his internship in May 2019 at the digital marketing agency *77agency*, was employed, working full-time in summer and part-time starting from September.

Several students continue cooperation started during their internships, participating in the implementation of events and projects organized by the internship companies also upon internship completion. Several students work as self-employed or manage their own businesses.

The 4CP study course “E-commerce and e-marketing” has been replaced by the 2CP “E-commerce”, in which only aspects of e-commerce are examined in depth. In its turn, an additional 4 CP study course “Marketing” was created, including e-marketing.

From the 2021 study year, it is planned to combine Creative Internship and Internship in the

Organization (6 CP in total), allowing students to take it in the summer semester (because usually in the summer there are many cultural and creative events that require trainees and students find it easier to find an internship. Defense of Internship will be in September.

Changes made by the Latvian Academy of Culture study courses: the study course “Music and Sound Art” (2CP) has been excluded from Part A of the study program, because in the student survey this course was not assessed as binding and corresponding to the study program. Part A course “Sociology of Culture, Art and Creativity” has been moved to Part C, because in the context of the program it was found to be too specific, thus the number of Part A CP has decreased from 61 to 59 CP.

In order to reduce the amount of examinations, several content-related study courses have been merged into one - “World Art History” (2 CP) and “Contemporary Art and Art Market” (2 CP), creating a new course “Art History and Contemporary Art Market” (4 CP). The lecture courses “Contemporary Performing Arts” (2 CP) and “Technological Aesthetic Solutions of Audiovisual Media” (2 CP) are also combined in one course “Contemporary Performing Arts and Audiovisual Art” (4 CP). The lecture courses “Introduction to Studies and Career Development” 1 CP “Introduction to Creative Industries” (2 CP) have also been merged, creating a new course “Introduction to Studies and Creative Industries”, increasing the CP amount of this course from 3 CP to 5 CP, as students indicated that it wants to learn more about topics directly related to the definition of creative industries and research. The number of CP of the study course “Legal Regulation of Creative Industries” has also been increased from 1 to 2 CP.

The scope of the study course focused on the acquisition of various branches of creative industries has also been expanded, the title from “Management of Creative Industries” (5 CP) to “Cultural and Creative Industries” has been clarified, envisaging 8 CP for this lecture course, this course is planned separately. "The design industry." An increase in the CP of this course is possible by giving up the study course “Cultural Consumption and Audience Research” (2CP), which was recognized as less priority and too specific for the bachelor's study program.

After discussions with students and lecturers, the program council has in some cases also changed the planning of study courses by semesters, thus improving the sequence of content acquisition.

## 2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.

During the first two years of running of the program, the LAC *Erasmus+* mobility opportunities were used by six students.

Outbound Mobility of the Academic Study Program “Creative Industries”

Study Year	Year 1	Year 2	Year 3	Total
	Full-time intramural	Full-time intramural	Full-time intramural	
2017/2018	-	-	-	-



2018/2019	-	6	-	6
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In the autumn semester of academic year 2018/2019, the 2<sup>nd</sup> year student Patriks Piternieks studied at the University of Jyväskylä, Finland, within the framework of the ERASMUS+ program, where he mastered the following courses: Esthetical and Technological Solutions of Audiovisual Media (2CP), Art and Entrepreneurship (2CP), Research Methodology and Academic Writing (2CP), Practical Cultural Policy (2CP), Management of Creative Industries Branches, Corporate Social Responsibility and Business Ethics (2 CP).

In the autumn semester of academic year 2018/2019, the 2<sup>nd</sup> year student Kitija Lučna-Logina studied at the University of Turin, Italy, within the framework of the ERASMUS+ program, where she mastered the following courses: Esthetical and Technological Solutions of Audiovisual Media (2CP), Business Mathematics and Statistics (4CP), Accounting and Finance (3CP), Art and Entrepreneurship (2CP), Research Methodology and Academic Writing (2CP), Practical Cultural Policy (2CP), Management of Creative Industries Branches (2CP), Corporate Social Responsibility and Business Ethics (2CP).

In the autumn semester of academic year 2018/2019, the 2<sup>nd</sup> year student Paula Lazdiņa studied at the University of Groningen, the Netherlands, within the framework of the ERASMUS+ program, where she mastered the following courses: Esthetical and Technological Solutions of Audiovisual Media (2CP), Art and Entrepreneurship (2CP), Research Methodology and Academic Writing (2CP), Practical Cultural Policy (2CP), Management of Creative Industries Branches (2CP).

In the autumn semester of academic year 2018/2019, the 2<sup>nd</sup> year student Dace Otomere studied at the Heriot-Watt University, Great Britain, within the framework of the ERASMUS+ program, where she mastered the following courses: Esthetical and Technological Solutions of Audiovisual Media (2CP), Art and Entrepreneurship (2CP), Research Methodology and Academic Writing (2CP), Practical Cultural Policy (2CP), Management of Creative Industries Branches (2CP), Corporate Social Responsibility and Business Ethics (2 CP).

In the spring semester of academic year 2018/2019, the 2<sup>nd</sup> year student Žanete Biukšāne studied at the University of Cagliari, Italy, within the framework of the ERASMUS+ program, where she mastered the following courses: Design Industry (2CP), Music and Art of Sounds (2CP), Creative Industries: Term Paper (4CP), Corporate Social Responsibility and Business Ethics (2 CP).

In the spring semester of academic year 2018/2019, the 2<sup>nd</sup> year student Anna Vildaus studied at the University of Antwerp, Belgium, within the framework of the ERASMUS+ program, where she mastered the following courses: Design Industry (2CP), Music and Art of Sounds (2CP), Creative Industries: Term Paper (4CP), Corporate Social Responsibility and Business Ethics (2 CP).

Acknowledgement of the study courses obtained during the mobility period takes place at the meetings of the program council. LAC acknowledges all obtained credit points by making alignment with part A, B or C of the program respectively, whereas RTU acknowledges those credit points that conform to the content of the program, devoting special attention to the program graduates receiving the required knowledge about the regulation of commercial activities and legislation in Latvia.

The inbound mobility program has not yet been implemented.

### **III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)**

**3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.**

The study process is organized in two buildings of LAC – at 24 Ludzas Str. and 46 Dzirnavu Str., as well as at RTU Faculty of Engineering Economics and Management at 6 Kalnciema Str.

Lecture Rooms/ Work Premises	LAC 24 Ludzas Str.	LAC 46 Dzirnavu Str.	RTU IEVF 6 Kalnciema Str.	RTU 6 Ķīpsalas Str.; 10 Ķīpsalas Str.
Premises for lectures and practical classes	437 m2 + 120 m2	111 m2 + 320 m2	3400 m2	3500 m2 + 500 m2
Library	35 m2	---	---	2240 m2
RTU Design Factory	---	---	---	300 m2

All buildings of LAC and RTU ensure access to Wi-Fi internet, ensuring the 90% coverage. Lecture rooms are equipped for the needs of the study process; all lecture rooms have a computer, an overhead projector and a screen, a whiteboard. When required, other equipment can be installed in the lecture rooms. Computer classes and premises with transformable tables are available, which can be adjusted for seminars, round table discussions, etc. RTU Scientific Library has a 24/7 accessible work premise for students.

The program is financed from the state budget subsidy granted to the Latvian Academy of Culture (LAC ensures the planned budget funded places for the program) and tuition fees, as well as from the funds granted by the European Union and Latvian scientific, education and creativity funds by tender procedure for mobility, internships, etc. of the academic staff and students.

Ten study places funded from the state budget are provided for the program. Tuition fee for the full-time intramural studies in the 2017/2018 and 2018/2019 academic years is set at EUR 2,100, which is approved by the decision of the LAC and RTU Senates. The universities have agreed about the procedure of mutual settlements in their cooperation agreement.

**3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).**

### III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)

#### 4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.

The composition of the academic staff pertaining to the RTU study courses has not changed. Results and recommendation of the student poll are taken into account; there are regular meetings with group monitors, where pressing study processes related issues are discussed.

#### 4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.

Assistant Professor at the professional study program Mg.oec. **Judīte Jakubāne** participates in the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of the Academic Staff of Riga Technical University in Strategic Specialization Areas"; traineeship at Ltd Milzu, where professional competences are advanced in the professional environment in order to improve the topicality of the knowledge provided in the study process and its connection to the industry, in the period from July 2019 to February 2020. Dienas Bizness HUB, seminar "Future Opportunities for Sustainable Business Growth", 16 October 2018, Riga Technical University, course - Plagiarism, Copyright Infringement and Their Prevention (2 contact hours), February 2018. Certificate - Series PNI No. 003464 Riga Technical University, course - Methodology for the Creation and Development of New Products. Duration of the course - 160 academic hours, March-May 2017. Certificate - Series PNI No. 003141 Ministry of Education and Science, course Promoting the Competitiveness of Teachers in the Conditions of Optimization of the Educational System, 40 hr., April-May 2013. Certificate No.18759 on the obtained 2<sup>nd</sup> degree of professional quality performance of teachers.

Assistant Professor Dr.iur. **Daina Ose** - lawyer, Doctor of Law, practicing sworn attorney. Practical experience in solution of commercial disputes in court. Qualification advancement: continuous education courses: 26 March 2019 - "PowerPoint and Skill of Successful Presentation" (8 academic hours). Certificate issued by the State Administration School No.04-03/1002; 2. 21 September 2017 - "Current Pedagogical Methods and Latest Tendencies in Working with Students" - 4 academic hours. Certificate of the Centre of Didactics of the LU Faculty of Education, Psychology and Art; 3. 29 May 2017 - "Applied Rhetoric" - 5.5 academic hours, certificate No.0113 issued by Letija MC.

Lecturer Mg.oec. **Leonards Budņiks** actively and regularly advances his qualification, for example, in 2019 he participated in the following events: "X, Y, Z and A Generations: Challenges for Employers, Parents and Teachers" (16 academic hours). Online courses: *Data Science: R Basic* (edx.org) *Probability - The Science of Uncertainty and Data* (edx.org). Leonards is also engaged in the transfer of knowledge in industry, for example, seminars/trainings related to data processing

held in 2019 - Ltd Compensa Services, Mogo, SJSC Valsts nekustamie īpašumi, Ltd Perfecta, Ltd Solvay Business Services Latvia. Consultations rendered in 2019 or developed data processing applications - JSC Sadales tīkls, Ltd Cido, Ltd Skonto Plan, Ltd Mesako. Certificates: SEEMAN IMTA Leadership and Change Management Track Microsoft Office Specialist Expert – Office Excel 2016 Expert.

Assoc. Professor Dr.oec. **Deniss Ščeuļovs** regularly participates in qualification advancement events pertaining to the academic and professional activities as the program director. In 2017, the qualification advancement course “Methodology for the Creation and Development of New Products” amounting to 160 academic hours was completed (Certificate PNI Nr.003140). On 23 February 2018, assoc. prof. participated in the FEEM academic staff qualification advancement seminar “Plagiarism, Copyright Infringement and Their Prevention” (2 contact hours, Certificate PNI Nr.003486). On 2 March 2018, the qualification advancement seminar “Is the RTU Study Process Qualitative?” (4 hours, Certificate PNI Nr.003682). Deniss participated in RTU FEEM academic conference “Integration of Teaching Methodological and Scientific Work into the Study Process” on 27 April 2018. On 29 January 2019, RTU FEEM qualification advancement seminar “The Procedure of Formulation of Subjects and Development of the Graduate Papers” (1 contact hour, Certificate Nr.28). On 26 February 2019, RTU FEEM qualification advancement seminar “RTU New Practice Organization Procedure” (1.5 hours, Certificate Series No.65). On 1 March 2019, RTU FEEM qualification advancement seminar “Corporate Culture: Reducing Internal Friction and Increasing External Opportunities” (2 hours, Certificate No. 82). On 12 April 2019, he participated in RTU IEVF academic conference “Education Based on Rolling Skills at Schools and Its Impact on Higher Education” with a presentation and publication in “Spotlights and Trends in E-commerce and E-marketing” (Certificate Series No.156). On 8 May 2019, Deniss participated in the training of AIC experts on quality assessment guidelines, methodologies and e-platforms for the accreditation and licensing process (7 hours, Certificate No.373). On 16-18 June 2019, he participated in NICE Network (The New Initiatives and Challenges in Europe (NICE) *Network is an inter-university network of over 30 partner institutions from 21 countries in the Enlarged Europe, the Middle East, Australia and Asia*) the annual meeting “MEGA – Making Higher Education Go Ahead”, participating in the workshops “Teaching an international classroom: more than teaching in a foreign language-online learning and guidance course”, “Blended Learning”, Techniques of Lateral Thinking for Creation of New Solutions & Business Ideas”, KYKYLAAKSO Learning Model & FIT test: two models for coaching (business) students, etc. On 26-27 August 2019, Deniss Ščeuļovs participated in the workshop “Problem based learning in creative education” (20 acad. hours). Assoc. prof. Deniss Ščeuļovs is also the current professional member of the UIIN (University Industry Innovation Network) network. It is a dynamic network, committed to driving innovation and entrepreneurship through cooperation between universities and industry dedicated to knowledge exchange, discovery of solutions and networking. Regular participation in qualification advancement activities contributes significantly to achieving learning outcomes and promotes high quality assurance and development of the program. Assoc. prof. Deniss Ščeuļovs is regularly engaged in research, regularly publishes papers in international scientific editions and participates in international scientific conferences. The research results are used in the conducted study courses.

Assistant Professor Mg.oec. **Lolita Tise** regularly participates in the qualification advancement events pertaining to the conducted study courses: 2015 – Certificate for the participation in the methodological conference. 2017 – Certificate for the participation in RTU FEEM UFEK qualification advancement seminar “New Norms within the Tax Reform Framework for an Employee”. 2018 – Certificate for the participation in the RTU FEEM UFEK qualification advancement seminar “Usage of PivotTable and ICT Tools at a Class”. 2018 – Certificate for the participation in the RTU methodologic conference. 2018 – Certificate for the participation in RTU FEEM academic conference “Integration of Teaching Methodological and Research Work in the Study Process”. 2018 –

Participation in RTU FEEM seminar “Usage of NetSupport Computer-class Control Software at Classes”. 2019 – Certificate for the participation in RTU FEEM qualification advancement seminar “Skilled Management of Personal Income Tax”. 2019 – Certificate for the participation in RTU FEEM academic conference “Education Based on Rolling Skills at Schools and Its Impact on Higher Education”.

Lecturer Mg.oec. **Aleksandra Mihņenoka** regularly attends qualification advancement seminars. In May-July 2019, A. Mihņenoka undergone internship of 200 hours at Ltd Jekabpils Pakalpojumi and Ltd Evatek, which allowed obtaining new experience, improving communication skills and providing real examples to students, which will contribute to comprehensive understanding of the theoretical material, linking theory to actual practical examples, real situation in the company and industry. Moreover, A. Mihņenoka has scientific publications in the relevant field. The competences to deliver lecture courses and conduct practical classes are regularly improved.

Professor Dr.oec. **Inga Lapiņa**, with more than 20 years of experience in higher education, research and project management. Research components in working with students are ensured through participation in scientific conferences and development of publications on topics such as the impact of cultural factors on organizational development, management of intellectual capital, managerial competencies in the management of intercultural teams, human resources management models: knowledge management and corporate social responsibility aspects, etc. Students learn the pressing issues of the sector topical for real business needs using a variety of creative approaches and innovative thinking to develop the entrepreneurial capacity.

Professor Dr.oec. **Elīna Gaile-Sarkane** is a leading researcher, since 2000 is the author of 130 scientific publications related to issues such as the use of the electronic environment to increase business competitiveness, cross-sectoral methodologies for developing business skills, etc. She has presented her research results participating in numerous conferences; research articles have been published in publications indexed in the Web of Science and/or SCOPUS databases. She has participated in various projects, is a co-owner of two patents: a method for separating and wintering butter and similar substances, and a device for implementing the technique, a co-owner of a tool for transporting wet paintings. She has experience in the management of promotion activities, with five Doctoral Theses developed under her supervision.

**4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).**

**4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).**

**4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.**

Assoc. Prof. Dr.oec. **Deniss Ščeuļovs** regularly performs and is engaged in different research activities, e.g., conducts regular research on the electronic environment, e-commerce, business, etc. The research results are regularly published in scientific editions (including Scopus and Web of Science databases) and are presented at international scientific conferences. Moreover, research results are integrated in the curriculum and materials of the study courses.

Professor Dr.oec. **Elīna Gaile-Sarkane**, in similar vein, conducts research and is engaged in other scientific activities, for example, regularly organizes the Innovation and Technology Transfer in Emerging Economies section at the international scientific conference "Systemics, Cybernetics and Informatics: WMSCI", Orlando, USA. Participants of the conference section are colleagues from the universities of Latvia, the Czech Republic, Lithuania and other countries.

Professor Dr.oec. **Natalja Lāce** actively performs different scientific activities both nationally and globally, helping to develop the scientific potential of Latvia and Europe. Among the recent projects implemented by the professor, there are the Latvian State Research Program project "Development of Innovation and Entrepreneurship in Latvia in Line with the Smart Specialization Strategy" (2014-2018), the project of the Latvian Council of Science "Strengthening the Security Capacity of Latvian Residents by Increasing their Financial Literacy Level" (394/2012)" (2013-2016), the Erasmus project "Conducting interdisciplinary research in cross-cultural environment": two editions of the project: 2012-1-LV1- ERA10-03686; 2013-1-LV1-ERA10-0553 (2012-2014). The Professor has a wide geography of scientific publications and conferences, including 46 scientific articles included in the Web of Science database, 45 in the Scopus database. H-index – 5 (WoS)/h-7 (Scopus). Prof. Lāce is a member of the editorial staff of several international scientific journals and a member of the scientific committee of several international conferences. Besides, Prof. N. Lāce is Vice President of the Society of Open Innovation: Technology, Market, and Complexity (SOItmC) (South Korea) & Executive President of SOItmC Latvia. Professor organizes and participates in the annual "Financial Literacy Week", which is organized by the Finance and Capital Market Commission (FCMC) together with its partners. It is held simultaneously with the financial literacy events organized in other parts of the world – Child and Youth Finance International (CYFI), the Global Money Week and the European Financial Week, organized by the Federation of European Banks. Classes, workshops, etc. are organized for students and the general public.

**D. Ščeuļova** research "Impact of e-environment on SMEs business development", "Impact of electronic development on business development: case of Latvia", "Digital economy ecosystem and its elements", "How to measure the efficiency of digital marketing channels ? " results published on the Web of Science are used in the study course "E-commerce" in various topics, for example: E-commerce business models and concepts; Online sales and services; Online content and media; Social networks and portals etc.

The results of **T. Kreicberg's** research "The Ways Of Promoting Corporate Social Responsibility Efforts For Today's Consumer: The Opinions Of Consumers And Experts" are integrated into the

study course "Social Responsibility and Business Ethics" in the topic Business Ethics and Social Responsibility Strategy in the Organization. Reputation and brand management. The research Gender discourse analysis of modern masculinity in advertising is used in the study course "Marketing" in the topic Understanding the actions of consumers and business buyers.

In the study course Economics **A. Mihņenoka** applies the results of research related to the development of the dissertation ("Methodology for assessing structural changes in the national economy and development of the optimal economic model") - students are additionally told about the structure of the national economy and its changes, causes and consequences. as well as graphs and analysis of current statistics are offered for clarity in order to explain the nature and significance of structural changes in the economy.

**4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).**

The academic staff cooperate on a daily basis on a variety of issues related to the study process. Developing the study courses, the academic staff coordinate study course curricula among themselves and with the program director in order to ensure non-overlapping of the content and the logical link between the courses, offering "modules" of the RTU study courses. As the program is new, the development of study courses is taking place on the basis of feedback received from students and the academic staff. For example, the course "E-commerce and E-marketing" has been changed to "E-commerce" and a separate marketing course has been created. The content of the specific study courses, such as "Business Mathematics and Statistics", "Economic and Labour Rights", etc., was tailored to the specific nature of the program and the envisioned learning outcomes.

In academic year 2019/2020 the course "Music and Art of Sounds " was removed, being replaced with additional credit points from the course "Culture and Creative Industry", the content of the course "Introduction to Studies and Creative Industries" is extended; moreover, a professional recognized in the sector – technical producer of events, the Head of the "Untitled" agency Mārcis Gulbis was attracted to as an instructor at the course "Event Management and Technical Production".

During the study process, regular non-formal meetings among the colleagues from both universities take place, including students, promoting mutual cooperation among the academic staff and students. For example, a joint event for the academic staff of RTU and LAC took place in December 2017 and May 2017. The next event is scheduled to take place in December 2019 and will be organized by the students themselves, along with the directors of the program from both universities.

Calculating the number of academic staff elected at RTU, the ratio of students to teaching staff is 1 teaching staff per 11 students. Taking into account that a significant number of professionals in the field are involved in the program, and by including these lecturers in the calculations, the proportion reaches 1 lecturer per 8 students. RTU provides about 1/3 of the study content, then it can also be considered that there are 4 students per 1 lecturer. Taking into account that the joint study program employs academic staff from different structural units of RTU and LAC, then the ratio

of students and lecturers must be considered in the context of both universities, in which case the ratio of bachelor level study programs is 4 students per 1 lecturer.



# Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)	Appendix 4 - Compliance of the Joint Study Program with the Requirements of the Law on Higher Education.pdf	4. Pielikums - Kopīgās studiju programmas atbilstība Augstskolu likuma prasībām.pdf
Statistics on the students over the reporting period	Appendix 5 - Statistical data on the students enrolled in the study program "Creative Industries".pdf	5. Pielikums - Statistiskie dati par studējošajiem studiju programmā.pdf
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	Appendix 6 - Compliance of the study program "Creative Industries" with the National Education Standard.pdf	6. Pielikums - Studiju programmas "Radošās industrijas" atbilstība valsts izglītības standartam.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)		
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Appendix 8 - Curriculum design of the study program "Creative Industries".pdf	8. Pielikums - Studiju programmas "Radošās industrijas" studiju kursu kartējums.pdf
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Appendix 9 - Curriculum of the study program "Creative Industries".pdf	9. Pielikums - Studiju programmas "Radošās industrijas" plāns (1).pdf
Descriptions of the study courses/ modules	Appendix 10 - Descriptions of study courses.zip	10. Pielikums - Studiju kursu apraksti.zip
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma-IBZ0.zip	Diploms-IBZ0.zip
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	Vienošanās_LU un RTU_2019.pdf	Vienošanās_LU un RTU_2019.pdf
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	01000-2.2.1-e_178.edoc	01000-2.2.1-e_178.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	02000-2.2.1-e_12.edoc	02000-2.2.1-e_12.edoc
Sample (or samples) of the study agreement	IBZ0 Study Agreement.pdf	Studiju līgums-IBZ0.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	Radošās industrijas.pdf	Radošās industrijas.pdf