

## APPLICATION

### Study field "Internal Security and Civil Protection" for assessment

Study field	<i>Internal Security and Civil Protection</i>
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# **Self-evaluation report**

Study field "Internal Security and Civil Protection"

Riga Technical University

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## 1. Information on the Higher Education Institution/College

### 1.1. Basic information on the higher education institution/ college and its strategic development fields,.

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 centre 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 sustainable development, quality, openness and cooperation, creativity, academic freedom, motivation to explore and discover.

At the academic year 2022/2023, an academic and scientific staff of approx. 1,200 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 Electrical and Environmental Engineering; Faculty of Engineering Economics and Management; Faculty of Mechanical Engineering, Transport and Aeronautics; Faculty of Materials Science and Applied Chemistry), four RTU Study and Science Centres in Cēsis, Liepāja, Ventspils and Daugavpils, and structural unit Latvian Maritime Academy, 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 programmes. Active development of a student campus is underway in Ķīpsala, where new faculty buildings are being built, while those built during 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.

RTU has defined its mission – we are building a competitive, educated, innovative and creative future, the vision – an internationally competitive, dynamic and modern university of science and technology.

Accredited RTU study fields and number of study programmes in October 2023:

Study field	Number of study programmes
Architecture and Construction	18
Economics	3

<b>Study field</b>	<b>Number of study programmes</b>
Energy, Electrical Engineering and Electrical Technologies	8
Physics, Materials Science, Mathematics and Statistics	7
Internal Security and Civil Defence*	6
Information Technology, Computer Engineering, Electronics, Telecommunications, Computer Control and Computer Science	38
Chemistry, Chemical Technology and Biotechnology	10
Mechanics and Metalworking, Thermal Energy, Thermal Engineering and Mechanical Engineering	30
Manufacture and Processing	4
Translation	2
Management, Administration, Real Estate Management	21
Environment Protection	3
Transport Services	3
<b>Total:</b>	<b>153</b>

\* The study programme "Customs and tax administration" (classification code 41861) is not subject to re-accreditation. There are no more students in it, and the decision to close it will be taken together with the submission for accreditation of the study field.

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

In recent years, the number of foreign students studying to obtain a degree or qualification in Latvia has increased. In addition, international student mobility growth is projected to continue also in the future. RTU has great opportunities to further increase the number of foreign students. It also provides an appropriate offer of RTU study programmes in English – 18 Bachelor study

programmes, 31 Master study programmes, and 10 Doctoral study programmes, moreover, this list is updated from year to year.

Dynamics of the number of students in RTU during the evaluation period:

<b>Academic year</b>	<b>Total number of students</b>
2013/2014	14,452
2014/2015	14,797
2015/2016	14,997
2016/2017	14,672
2017/2018	14,322
2018/2019	14,383
2019/2020	14,006
2020/2021	13,237
2021/2022	13,326
2022/2023	12570
2023./2024.	13066*

\* In October 2023 at RTU tentatively 9,680 studied at undergraduate study programmes, 2,941 studied at graduate Master degree programmes and 445 – at the Doctoral study programmes.

The guiding principle of RTU Strategy for 2021–2025 is the proactive link between the activity of the university and the needs of the national economy, focus on high quality and effectiveness. The basis for the activity of RTU is the study process built on science, innovation and in cooperation with the industry, which ensures preparation of specialists required by the Latvian national economy, thus serving as a foundation for sustainable growth of Latvia. RTU's strategy for the new programming period is a consecutive continuation of the previous strategy of the university for 2014–2020. It has been developed in compliance with the objectives and priorities defined in Latvian development planning documents.

According to the National Development Plan for 2021–2027 of Latvia, fundamental changes are planned in the near future in four directions – Equal Rights, Quality of Life, Knowledge Society, and Responsible Latvia, in the achievement of which a high-quality study process, excellent research, as well as sustainable innovation and commercialization activities play an important role, which are important elements in RTU's vision to become an internationally competitive, dynamic and modern university of science and technology.

Keynote of the RTU Strategy: High quality and effectiveness – proactive link between the activity of RTU and the needs of the national economy. RTU is one of the leading science and technology

universities of the Baltic and Nordic region, which is acting based on a study system built on research, innovation and cooperation with the industry. RTU prepares European and global-level engineers – leaders: developers of new technologies.

In order to implement RTU's vision to become an internationally competitive, dynamic and modern university of science and technology, RTU's strategy defines four main objectives for the next programming period, three of which are related to the implementation of basic university functions: excellent science, quality studies and sustainable valorisation. The fourth, institutional excellence, is related to the university support function and the development of internal governance in the six areas: digitalisation, sustainable development, effective financial and administrative action, internationalisation, communication and cooperation, human resources development. For all the objectives identified in the strategy define specific tasks to be performed and result indicators to make it possible to follow the implementation of the strategy so that RTU can realise its vision.

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 analysed annually with regard to the defined tasks.

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

## **1.2. Description of the management structure 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.

On 16 August 2021, the amending laws to the Law on Higher Education Institutions entered into force, which envisages changes in the internal management model and the procedure for electing rector, as well as defines a new typology of higher education institutions, setting specific eligibility criteria for each type. According to the new typology, RTU corresponds to the status of a university of science. Changes in the Law on Higher Education Institutions are one of the most important steps to create a modern, effectively managed higher education system in Latvia, based on science and research, oriented towards excellence, being internationally competitive and stimulating the country's economic development.

In view of this, during RTU is continuing a change process. On 31 August 2021, the new regulations of the RTU Senate were approved, on 20 September 2021 the new RTU Senate was elected. The RTU's Council was established in March 2022, a new Constitutional Assembly and a new Constitution was adopted on 24 May 2022. From the management point of view, the changes included in the amendments to the law concern the election process of a rector, the appointment/dismissal of deans, the establishment / reorganization of structural units based on the proposal of the rector, which now is decided by the order of RTU Council.



The council of the higher education institution is a collegial highest decision-making body responsible for the sustainable development, strategic and financial supervision of the university, but the senate will be responsible for the development of university's studies and scientific processes. The council must also ensure the operation of the state higher education institution in accordance with the goals set in its development strategy. The RTU Council consists of five representatives nominated by the RTU Senate, five external representatives of society or industry, who are not professionally related to the university, but whose presence allows the university to respond more flexibly to external changes and expand its strategic vision. The election of external representatives takes place in accordance with the regulations approved by the Cabinet, which ensures the transparency and political neutrality of the process. The council also has a representative nominated by the President of Latvia, thus

facilitating strategical focus of the university according to development goals of the state.

Overall, RTU management can be divided into three levels: university level, administration level and faculty level.

At the University level, there is the Constitutional 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 35 members of the RTU Senate, the other 165 members are elected by the central administration, faculties, and institutes that are not part of the faculties, study and science centres and the students' self-government in the amount to ensure proportional representation. The conditions for the formation of the Assembly are defined in Part II of the RTU Constitution (see the file of Annex 01 of the List of Internal regulations).

There are 35 senators in the Senate, of which 27 are representatives of the academic staff (not less than 75% of the representatives, including at least 14 professors or associate professors – not less than 50% of the total number of senators), seven students (not less than 20% of the total number of senators) and the Rector is a member of the Senate in accordance with the position. 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).

RTU Scientific Council, which consists of Deputy Deans in for research, Vice-Rector for Research, Deputy Vice-Rector for Research; and representatives of doctoral students; 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 Digital Transformation, 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 centres, 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 programmes 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 programmes 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 programmes, 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. Description of the stakeholders involved in the development and improvement of the quality assurance system and their role in these processes.**

RTU has established an internal quality management system that respects the standards of Part 1 of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

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). On 23 September 2022, RTU received an award – a four-star rating “Recognized by EFQM” after evaluating the quality management system implemented by the university. This recognition confirms that RTU has clearly defined the goals to be achieved in Latvia and abroad, is aware of and closely cooperates with partners in industry, the non-governmental and the governmental sector for the implementation of common goals, as well as has clearly visible trends of positive development and growth in the long term.

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

By establishing links with the stakeholders, 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 Management System. The heads of 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 are 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 activities and acquisition of feedback. To ensure the topicality and continuous development of existing study programmes and before the introduction of new study programmes 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 to improving the content and quality of study programmes.

More on this point is set out in Section 2.1.1.

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

RTU Quality Policy is published at  
[https://www.rtu.lv/writable/public\\_files/RTU\\_quality\\_policy\\_of\\_rtu.pdf](https://www.rtu.lv/writable/public_files/RTU_quality_policy_of_rtu.pdf) (Also added to the file of Annex 03 of the List 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 2(1) of the Law on Higher Education Institutions 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 justification.**

1.	The higher education institution/ college has established a policy and procedures for assuring the quality of higher education.	<p>In line with the quality model management system introduced by RTU, process analysis and improvement are ongoing. Performance indicators and feedback - the results of the assessment of various stakeholder surveys are analysed. 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 analysing 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>The development of study programmes takes place in accordance with the "Procedure for the application, elaboration and amendment of the study programmes" (approved at the Meeting of RTU Senate on 26 April 2021, Minutes No 649).</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 fields and study programmes, the changes to the study fields and programmes and the annual reports of the improvement of the study fields. At RTU, the operation of the internal quality assurance mechanism takes place at the level of the Rectorate, faculties, study fields and study programmes.</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 Programme Register, which involves control of the conformity of the study curriculum to the aims, tasks and learning outcomes of the study programme, 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.	<p>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>	<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 30 May 2022, Minutes No 663) and "Regulation on Final Examinations at RTU" (approved at the Meeting of RTU Senate on 26 April 2021, Minutes No 649).</p> <p>Regulation on the Assessment of Learning Outcomes states that the process of evaluating study results includes formative and summative evaluation and regulates summative assessment for evaluation of the achieved study results in RTU study courses. This regulation determines the procedure for summative evaluation of study results achieved in RTU study courses. Regulation defines different types of assessments, rating scales, assessment planning and procedure, determination of the final rating, procedures for appeals, academic debt settling and how to improve academic performance.</p> <p>The procedure for evaluating the study results achieved at the end of the study programme are determined by the Regulations on Final Examinations, which regulates the procedure for organization and conduct of final examinations, general requirements for study graduation papers, final theses (graduation papers), as well as the procedure of development and presentation of study final theses graduation papers. Detailed requirements for study graduation papers final theses, methodological guidelines for development of study graduation papers final theses and the procedure of presentation, pursuant to the present Regulations, is developed by the unit in charge for the implementation of the relevant study program and approved by the relevant Faculty Council. These Regulations apply to studies of all types and levels, except for doctoral studies.</p>
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4.	Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.	<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.</p> <p>The Centre for Academic Excellence (CAE), a teaching and learning centre, 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 No. 569. Other tasks of CAE are detailed in Section 3.5.</p> <p>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>
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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>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 by the resolution of RTU Vice-Rector for Academic Affairs No 02000-1.1-e/89 as of 1 February 2021). 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 programme. The results of the surveys are available to academic staff, heads of organizational units and students in a summarized form. The survey results also directly summarize the effectiveness of academic staff’s work, as students also have the opportunity to add their comments to surveys on teaching staff’s work abilities and professionalism. The analysis of student success information is the responsibility of the specific unit implementing the study programme. Information regarding the success of students within the scope of study courses and the weighted average mark in general shall be available in the RTURTU Study Management system. Annually, the State Revenue Service provides information on employment of RTU graduates.</p> <p>The total quality management system of RTU, which is based on the EFQM quality model, includes and ensures the analysis and comparison of performance indicators of the study process and study programmes. 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 graduates who complete their studies on time; (4) number of students expelled from University; (5) number of foreign students; (6) average age of elected academic staff; (7) number of study programmes implemented in English; (8) average indicator of the evaluation of faculty academic staff; (9) number of persons with a scientific degree elected to academic positions (%); (10) 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.</p> <p>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> <p>The study process funds are administered in accordance with methodologies approved by the Senate or as stipulated by the Vice-Rector for Finance. Principles of the methodologies motivate the heads of departments to be proactive, to plan the development of the unit, and to apply for funding. These methodologies are described in more detail in section 2.3.1. of the self-assessment report.</p>
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6.	The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study field whilst implementing their quality assurance systems.	<p>At the level of the faculty and study field, internal quality is ensured by the Faculty Council, the Study field Committee and Directors of the study field, Directors of the study programmes, administration of the institutes and chairs implementing study programmes. Within the framework of the study programme, 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 programme is carried out by the administration of the relevant institute or chair.</p> <p>In order to ensure continuous development of the study programmes, RTU Study field Committees monitor academic activities in the relevant study field and are responsible for the curriculum and quality of the study programmes within the study field, including the accreditation of the study field. Inclusion of employer representatives in the study field Committee is a mandatory requirement. Study field Committee acts in accordance with the “Regulation of the Study field Committee” (approved by the Resolution of RTU Senate Meeting on 26 April 2021, Minutes No 649).</p> <p>The basic tasks of the Study field Committee are: (1) to analyse the situation in the labour market and make suggestions for the development of new study programmes as well as for the closure of the outdated study programmes; (2) to carry out expert assessment of the curriculum and quality of the study programmes, assess their compliance with the defined objectives and compliance with the research area represented and labour market requirements; (3) to organize and monitor the accreditation of the study field and the licensing of study programmes; (4) to analyse the assessment and recommendations made by external experts and organize elimination of identified shortcomings; (5) to carry out an analysis of the study field self-assessment report as well as the annual reports on study field development activities; (6) in order to achieve strategic objectives of the University, to assess the proposed changes to study programmes with a view to increasing the quality of all study programmes included in the study fields; (7) to analyse 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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## 2.1. Management of the Study Field

**2.1.1. Aims of the study field and their compliance with the scope of activities of the higher education institution/ college, the strategic development fields, as well as the development needs of the society and the national economy. The assessment of the interrelation of the study field and the study programmes included in it.**

**The aim of the study field** is to provide a systematic and successive education in the fields of internal security and civil protection. To achieve the aim, it is necessary to prioritize preventive measures and to be able to anticipate the development of the internal security and civil protection system, linking it to all sectors that have a role to play in the protection of society. It is the national interest to ensure the security of the state, the security of society and the security of individuals.

**The study field** was accredited on 5 June 2013 for the full accreditation period of six years. The study field covers the training of professionals in the fields of public and human security, such as



**national border security, economic security and the security of economic entities through customs and tax administration, civil protection, labour protection and fire safety.** As a full member of the European Union (EU), Latvia's national security strategy is aligned with the EU Internal Security Strategy. According to the EU Internal Security Strategy, it is necessary to proactively address threats that have a direct impact on the life, security and well-being of citizens, including natural and man-made disasters.

In terms of addressing threats to economic stability, the functions of the state that are exercised for economic security through legislation or other instruments include the protection of personal health, life, property and rights thereto, as well as the protection of intellectual property. The activities of the customs authorities of the State Revenue Service (SRS) are of great importance in protecting economic interests, such as consumer rights, the prevention of competition and corruption risks, the free movement of goods and the protection of fair trade, the detection and prevention of counterfeiting, as well as the protection of employees' interests. The fight against terrorism, including the threat of dual use and the import or transit of prohibited goods, is also in the interests of the modern society, and the customs authorities have a crucial role to play. Customs cooperation with other border security authorities, such as the State Border Guard, the Sanitary Border Inspection, as well as integrated (coordinated) border security is important. The tax authorities play an important role in preventing threats to the state finances and in ensuring public confidence, including in the fight against money laundering and the financing of terrorism.

The **aims** of the study field and its programmes are derived from RTU **strategic aims**. RTU sets 4 main aims, three of which are related to the implementation of the University's core functions: **excellence in research, high quality study process and sustainable valorization**. The fourth, **institutional excellence**, is related to the development of the University's **support functions and internal governance**. There are 6 sub-aims defined for institutional excellence: digitalization, sustainable development, effective financial and administrative management, internationalization, communication and cooperation, human resource development. All the aims identified in the strategy define specific tasks to be performed and result indicators to make it possible to follow the implementation of the strategy so that RTU can realize its vision by 2025 – an internationally competitive, dynamic and modern university of science and technology.

The strategy of RTU Faculty of Engineering Economics and Management (FEEM) for the new planning period has been developed in accordance with [RTU Strategy \(2021-2025\)](#) and RTU Development Programme, based on the guidelines of these documents. It reflects the contribution, main aims and tasks of the FEEM to achieve the overall aims of the University.

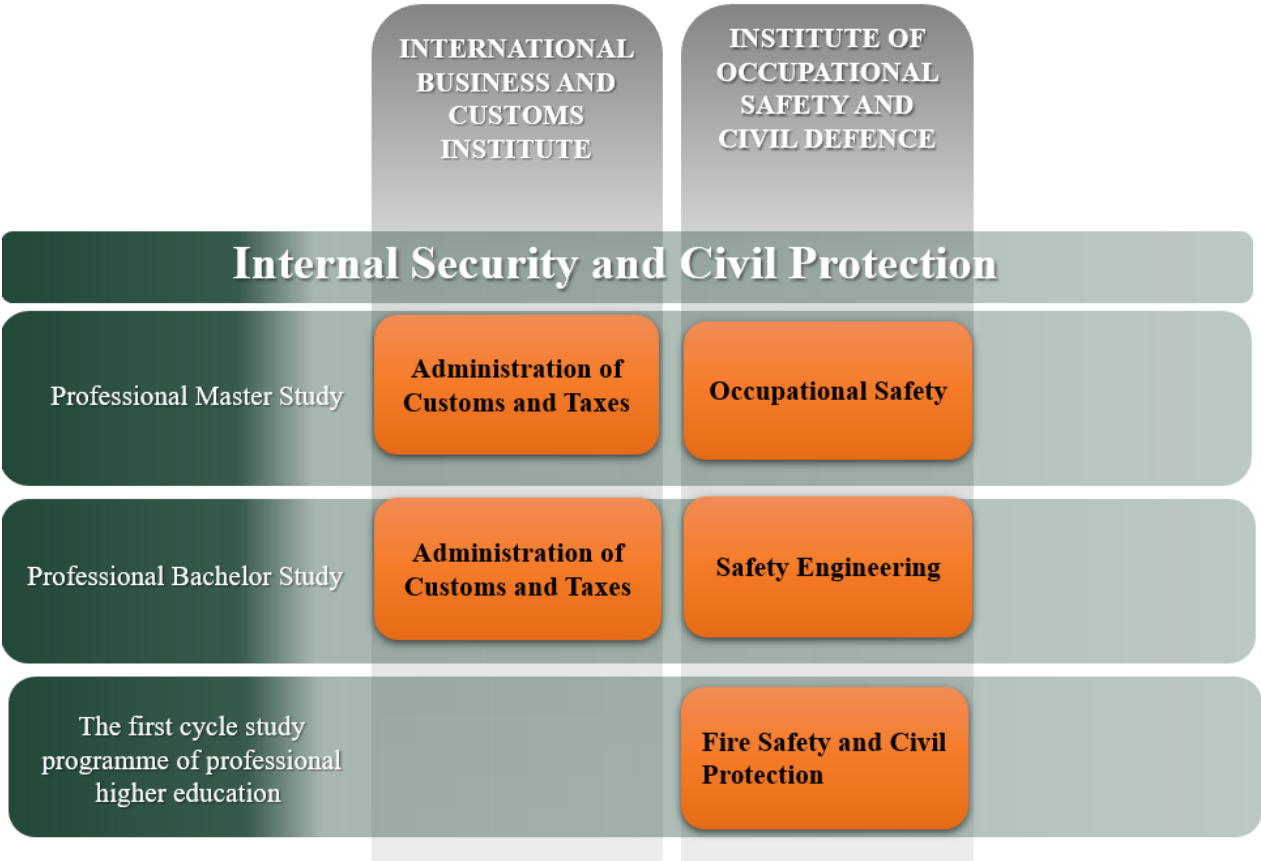
The [FEEM Strategy](#) reflects the performance indicators of the FEEM academic, research and valorization process, assesses the competitive advantages and defines the tasks in order to achieve the academic, research and valorization tasks, taking into account the four main aims defined by RTU, which are also cascaded at the level of the faculties.

The main activities of FEEM until 2025 will be focused on strengthening international cooperation, valorization and obtaining international accreditation on study programme and institutional (faculty) levels.

The FEEM **mission** is to train internationally recognized, highly qualified specialists in various fields of management, administration, economics, security, technology, systems and sector management – business, human resources, international economic relations, customs and tax administration, logistics, systems, process, technology and quality management, real estate management, marketing, finance and labour and civil protection.

The aims of the study programmes within the study field are subordinated to the aim of the study

field, forming a coherent framework while reflecting the specifics of each study programme.



**Figure:** *Interconnection of study programmes*

As one can see, there are 5 programmes in this study field:

Professional Bachelor and Master study programmes **“Administration of Customs and Taxes”**, which ensure that students acquire comprehensive knowledge of the activities of customs and tax authorities and are able to apply it in practice, as well as are able to independently analyze information, make decisions and demonstrate an understanding of professional ethics and perform the duties of the head of an institution, company and its departments. The programme provides students with professional knowledge in the specialization, thus educating both versatile public administration employees and employees for the private sector.

The First Cycle Professional Higher Education programme **"Fire Safety and Civil Protection"** corresponds to the interests of Latvia in the field of human safety and educates and trains students for the profession of fire safety and civil protection engineer. This study programme educates and trains fire safety and civil protection engineers required for the operation of the national security system. The functioning of the national security system is based on civil-military cooperation, which is the planned and coordinated action of public authorities, society and the National Armed Forces to deal with national threats.

The security of the technogenic environment is also understood as one of the most important components of the security of a country’s internal economic and human potential resources. One of the fundamental human rights, as stated in the Constitution of the Republic of Latvia, is the protection of life and health. The main mission of the study programmes **“Occupational Safety”** and **“Safety Engineering”** is to train highly qualified senior **Chief Specialists in Occupational Safety and Occupational Safety Engineers**, whose knowledge of occupational safety and civil defence is necessary for the national economy to guarantee safe working conditions for health and life in every workplace, which is also in full compliance with the national interests. The functioning

of the national security system is based on civil-military cooperation, i.e., on the principles of effective coordination of mutual cooperation, understanding of common aims and shared responsibility for the results to achieve the aims.

As regards customs education, it should be noted that it has specific requirements at the international level, which must be met alongside the requirements of national professional standards.

The requirements for the study programme at the Bachelor level are defined by the World Customs Organization (WCO) PICARD Professional Standard for Customs Operational Manager, and for the study programme at the Master level – by the Standard for Strategic Manager/Leader. These standards were endorsed in 2009 by 177 WCO Member States, including the European Union and Latvia. In 2019, these standards were updated. Specialists from the International Business and Customs Institute (IBCI) of Riga Technical University participated in both the development and revision of these standards. (Annex WCO Professional Standards 2019) For this cooperation, RTU received a letter of appreciation from the WCO (<https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/capacity-building/activities-and-programmes/picard/professional-standards/omd-normes-prof-uk-basse-def.pdf?la=en>)

RTU Bachelor and Master study programmes “Administration of Customs and Taxes” have been developed in accordance with the requirements of the Latvian national professional standards, the WCO PICARD Professional Standards and the European Union Customs Competency Framework and Training curricula. The programmes have been recognized by both the WCO and the EC (Annexes: EC Recognition Certificate Bachelors, EC Recognition Certificate Masters, WCO Certificate). The international prestige of these programmes is very high.

In 2010, RTU Bachelor and Master study programmes were the first in the world to be recognized by the WCO as meeting the WCO professional standards. Following the revision and update of the WCO standards in 2019, RTU study programmes have also undergone corresponding changes.

**In June 2021, the Bachelor and Master study programmes “Administration of Customs and Taxes” were also recognized by the European Commission for compliance with the EU Customs Competency Framework requirements.**

The EC Certificate of Recognition is awarded as a mark of excellence for high-quality, modern customs study programmes, certifying that they provide students with the customs competences defined by the EC for work in both the public and private sectors in the EU.

RTU is the only educational institution in Latvia with internationally accredited study programmes “Administration of Customs and Taxes”. The unique study programmes, developed in cooperation with the World Customs Organization and the State Revenue Service, as well as in compliance with EC requirements, have now received the full possible international recognition granted to customs programmes in higher education institutions worldwide. Along with RTU diploma, graduates also receive a WCO certificate of compliance with international standards for the customs profession and an EC certificate of compliance with the EU Customs Competency Framework requirements ([https://taxation-customs.ec.europa.eu/taxation-1/eu-training/custcompeu-eu-customs-competency-framework\\_en](https://taxation-customs.ec.europa.eu/taxation-1/eu-training/custcompeu-eu-customs-competency-framework_en)).

(Annexes: RTU EC certificates for Bachelor`s and Master`s Programmes 2) RTU WCO certificates for Bachelor`s and Master`s Programmes).

At the same time, RTU has obtained the right to use the WCO logo on methodological materials developed by RTU in the field of customs.

It should be noted that before the EC recognition certificate was awarded, leading EC experts

assessed the overall RTU programmes, as well as the content of individual study courses included in the programmes, for compliance with the EU Customs Competency Framework. In its evaluation, the EC acknowledged that RTU has “one of the best customs study programmes in the EU, providing excellent and versatile training in customs competences”. The EC also notes that “international experts have assessed that the actual level of competences to be acquired at RTU programmes is even higher than the EC requirements”.

Further information on EC recognition:  
[https://ec.europa.eu/taxation\\_customs/eu-recognition-state-art-customs-academic-programmes\\_en](https://ec.europa.eu/taxation_customs/eu-recognition-state-art-customs-academic-programmes_en)

The demand for graduates of the study programme “Administration of Customs and Taxes” is very high, and the demand for these specialists by the State Revenue Service is still not fully met. One of the reasons is the insufficient number of state budget funded seats allocated to the study programme. Despite repeated requests to the Ministry of Education and Science of the Republic of Latvia by the Defense, Internal Affairs and Corruption Prevention Committee, as well as the State Revenue Service, to find a solution to the unsatisfactory situation, no positive changes in the increase of state budget funded seats are taking place.

According to the State Revenue Service, the turnover of SRS staff is 16% per year. On average, around 550 new staff are needed per year in the areas of taxation, customs and support. Graduates of the study programme “Administration of Customs and Taxes” will continue to be needed to ensure efficient and quality collection of taxes and other compulsory payments, detection and prevention of criminal offences in the field of state revenue, as well as protection of the external border of NATO and the European Union.

There is also a continuing high demand for specialists in firefighting and occupational safety. In Latvia, until 2011, three study programmes were implemented, which generally had a positive impact on the safety of the technogenic environment but did not provide a comprehensive view of this aspect and the ability to control the impact of production on the surrounding working environment as a whole, without ensuring sustainable and comprehensive monitoring of safety and the quality of life and health of human resources. The increasing level of technological integration of production leads to the need for a comprehensive assessment of technogenic environmental safety. Occupational safety, fire safety and civil defence were previously considered relatively separate disciplines. In turn, techno-genetic integration – the automation of production processes by combining successive, different technologies (with different degrees of hazard and different effects on human health, life and well-being) in a single system – requires the integration of the disciplines of occupational safety and management education. It was concluded that there was not the basic stage – professional Bachelor studies. RTU Senate approved the professional Bachelor study programme “**Safety Engineering**” on 31 January 2011.

Given that the study programmes “Administration of Customs and Taxes” and “Fire Safety and Civil Defence” and “Safety Engineering” are unique in Latvia, the competitiveness of graduates is very high and this gives opportunities to develop the national security system in the future.

**In a survey conducted by the Employers’ Confederation of Latvia (LDDK)**, RTU has been recognized as the most recommended and acknowledged higher education institution by employers and has been ranked 1st in this ranking every year so far. This is an evaluation of Latvian higher education institutions by the Latvian portal Prakse.lv and LDDK. It evaluates which professions are currently needed on the labour market and which higher education institutions are able to educate and train the best specialists for competitive companies. The aim of the assessment is to help primary and secondary school graduates make the right choice of profession and educational institution. RTU has been recognized as an example of how to provide a real link between studies and the real labour market. In this survey, the list of most in-demand professions included not only

engineering professions, but also those related to the study field “Internal Security and Civil Protection”.

In 2022, RTU FEEM and Riga Business School (RBS) were ranked high for the seventh time in **the 4 Palmes League**. The rating acknowledges a particularly high level of academic institution, outstanding quality and strong international influence in business and management education. In total, the ranking consists of five palm leagues. RTU FEEM and RBS are ranked in the high four palms league, which includes 200 business schools with excellent rankings and a strong international impact. These achievements demonstrate the high-quality level and development potential of the FEEM study programmes at the national, regional and international levels.

In the year of 2022 study programme "Occupational Safety" achieved rank 4 in the category “Cybersecurity, systems security and data protection” and rank 12 in the category “Environmental security” <https://www.best-masters.com/search.php?query=Riga+technical> .

RTU FEEM Master study programme “Administration of Customs and Taxes” was ranked 29th among the world’s top 50 university and business school programmes in tax administration in 2021.

This is an excellent assessment in the international Eduniversal Best Masters ranking. The results of the ranking demonstrate the high international competitiveness of the study programmes in different fields.

For more information on the ranking, visit <http://www.eduniversal-ranking.com/>.

One of the ways in which the management of study programmes in the study field obtains information on the quality of the study programme and its compliance with labour market requirements is through close contact with employers – companies, institutions and organizations, as well as graduates. In order to ensure a continuous two-way dialogue, regular events and conferences are organized, where all the parties involved – employers, specialists from the SRS customs and taxation, State Fire and Rescue Service security authorities, international organizations, academic staff of the university, graduates and students – meet.

In October of the academic year 2017/2018, the FEEM Advisory Board was established and approved at the FEEM Council meeting. The aim of the Board is to promote the development of RTU, FEEM and institutes in line with RTU strategy and the needs of the national economy and to help improve the quality of studies.

**2.1.2. SWOT analysis of the study field 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 field 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 field for the next assessment period shall be provided.**

To ensure the quality of the study field, an annual improvement report is drawn up and evaluated by an expert appointed by the Vice-Rector for Academic Affairs. The SWOT analysis is an integral part of the improvement report, which allows showing the achievements and highlighting the problems in a concise way. It is an essential tool for achieving the aims of the study field and allows

for regular changes and improvements in the programmes of the study field. For example, the SWOT analysis and the development plan for the next 6 years were substantially revised in 2022 with the involvement of all heads of the study programmes, employer representatives and representatives of the FEEM Student Self-government. In order to contribute to the planning and development of the study field, the results of the SWOT analysis and the development plan were discussed with the members of the FEEM Advisory Board at the meeting.

### **SWOT analysis of the study field:**

#### **Strengths**

- unique and modern study programmes at higher education level;
- the study programmes incorporate requirements of the World Customs Organization (WCO) and European Commission (EC) for study programme content, which facilitates cooperation with other higher education institutions in the field of customs worldwide;
- the professional Bachelor and Master study programmes in customs have received full possible international recognition. Graduates receive the internationally recognized diploma, as well as WCO and EC certificates;
- international experts rank them among the best study programmes in customs in the European Union (EU), providing excellent and versatile training in customs competences. It has been noted that the level of skills to be acquired at RTU study programmes is even higher than that imposed by the EC requirements;
- highly developed infrastructure and physical facilities, modern technical support for classrooms and staff offices, excellent digital infrastructure (ORTUS, Bloomberg, Use Science, publication databases, etc.);
- ARSHI software installed, ALOHA and ArcGis software and the ORTUS portal environment used in the study process;
- the latest information technologies and databases in the field of customs and taxation, such as EMDAS (electronic customs data processing system); EDS (electronic declaration system); ITMS (integrated tariff management system), etc., are used in the study courses;
- the Institute of Occupational Safety and Civil Defence has the Scientific Laboratory of the Technogenic Environment Safety, which allows developing and implementing research programmes in the fields of labour protection, civil protection and fire safety within the European Union, Latvian Council of Science and other scientific projects, as well as providing technical facilities for research activities of Master and PhD engineering students. In 2017, the laboratory was equipped with the automatic fire extinguishing and warning system.
- in cooperation with the SRS customs administration, the Department of Customs and Taxes has established the Customs Control Laboratory. It is equipped with various measuring devices and technical aids used by customs officers in their daily work of inspecting vehicles and persons. Thus, students' abilities to find contraband goods are trained in practical classes;
- in cooperation with the SRS, the International Business and Customs Institute has established RTU Museum of Customs and Taxes, whose exhibits, films and other materials are used in the study process;
- the opportunity to use special literature developed by RTU academic staff according to the needs of the study process;
- motivated and professionally qualified staff with extensive experience in practical work; the administrative structure and processes of the programme ensure continuous programme development and quality control;
- democratic relations among the administration, academic staff and students; students have the opportunity to influence the study process, its development and improvement. FEEM has

the most active Student Self-government;

- close contact of academic staff with employers, active participation of employers in the study process (possibility to use employers' facilities); study programmes have a good recognition and reputation in Latvia as high quality programmes and high evaluation by employers; thus, there is a high demand for specialists in both the public and private sectors in the study field;
- the opportunity to use the technical facilities of the SRS, such as specialized laboratories, control equipment, etc.
- the study programme provides relevant, high-quality, modern and prestigious education and good career opportunities; students and graduates have the level of theoretical knowledge required by the sector, the study process balances theoretical and practical classes, and student practical placements are provided;
- RTU organizes qualification upgrading of economic specialists, especially in the field of customs, which also promotes the use of the latest information in the study process and improves cooperation with employers;
- RTU library is spacious, modern and accessible (works 24/7), the latest textbooks and materials of world-renowned case studies are used in the study process; opportunities to use special textbooks developed by the academic staff of the study field;
- opportunities to participate in international scientific conferences and seminars (for both students and faculty), including those organized by the WCO;
- excellent cooperation with international organizations; extensive business contacts with the WCO, EC, customs authorities of various countries (Latvia, Germany, Lithuania, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan, Azerbaijan) and their training centres, foreign universities and ERASMUS+ member states in the field of public security, as well as long-standing and close cooperation with the State Fire and Rescue Service of Latvia and equivalent bodies in Lithuania, Estonia and the Council of the Baltic Sea States;
- RTU academic staff have proven to be highly qualified specialists who are regularly included in working groups for the development of various international and national laws and regulations and are invited as experts in accident assessment in their respective fields, including Advisory Councils, etc.
- a strong RTU Alumni Association, which builds reputation and sustainable cooperation with former students;
- high international reputation and visibility.

## **Weaknesses**

- students' initial level of preparation and insufficient prior knowledge in certain subjects after secondary school, which creates additional workload for academic staff and hinders opportunities to develop students' research skills and professional competence;
- insufficient student mobility within the learning process; student employment due to financial constraints; combining study with work;
- the need to use restricted information, making international student exchanges more difficult; limited opportunities for academic staff to publish research results, etc.;
- limited access to industry databases (e.g., tax information systems, risk analysis, etc.) and lack of appropriate simulation software, as well as insufficient funding to purchase such software;
- the requirement to increase tuition fees annually, which has led to a decline in the number of tuition fee paying students at the study programmes. For example, while the study programme "Administration of Customs and Taxes" accounted for around 30% of RTU total fee income in 2019; in 2022 it had only 11 tuition fee paying students;
- insufficient public funding for state budget seats at programmes of the study field compared



- to the demand for graduates from public institutions and the private sector;
- declining student success rates due to the combination of study and work.

## **Opportunities**

- to develop wider international cooperation in the areas of internal security and civil defence training and scientific research, including through participation in the EC BOMCA-10 programmes and the Geneva Centre for the Democratic Control of Armed Forces and OSCE programmes in Central Asia, as well as the WCO PICARD programmes;
- to develop international cooperation through the implementation of the WCO common standards for customs professions, the EC TAXUD framework of professional competences for customs officers;
- to develop research capacity, involving students, to conduct applied research in cooperation with companies and organizations in the sector, and to elaborate graduation papers in accordance with the interests of particular companies and the specifics of the sector;
- to regularly develop study programmes in cooperation with foreign partners and employers in Latvia, assessing changes in the sectors related to the study field and following the labour market trends;
- to strengthen international cooperation with partners, developing scientific and research activities by participating in international projects;
- to offer qualification improvement courses according to the specifics of the sector, as well as offering study courses within projects that ensure the acquisition of skills that are relevant and important for the sectors of the national economy;
- to promote the interest of successful entrepreneurs to share their experience and knowledge by providing opportunities to engage them as academic staff in the implementation of the programmes of the study field and by creating opportunities for expanding cooperation in the study process (guest lectures, excursions, etc.);
- to promote students' interest in taking advantage of study opportunities abroad in the framework of exchange programmes, mobility programmes for academic staff and international experience;
- to develop and promote the use of digital infrastructure to provide training for both full-time and part-time students, including distance learning classrooms that can help improve the service and attract students who cannot attend lectures onsite or are located outside Riga, as well as to reach the widest possible audience for training both in Latvia and abroad;
- to continue the digitization of study courses, including interactive materials and gamification elements;
- to attract engineering students from RTU and other higher education institutions for Master studies.

## **Threats**

- lack of a sustainable strategy in the Latvian higher education policy, including in the field of security;
- insufficient public funding for state budget seats in the field of security. In addition to the sharp decline in the number of fee-paying students, the number of graduates will fall accordingly. As a result, the demand for specialists in the field will not be met;
- lack of a sustainable strategy in the SRS staff development and recruitment system, which does not ensure sufficient attraction of graduates;
- a decrease in the number of potential applicants due to youth emigration and demographics, as well as the career orientation of secondary school graduates towards other fields;
- high tuition fees and low ability to pay;
- very expensive equipment and laboratory facilities in the field of study.



Analyzing the strengths/weaknesses, opportunities and threats of the study field to achieve its aims, it can be concluded that many of the problems are due to circumstances beyond the control of RTU and can only be solved at the national level. However, some of these problems can be solved by RTU (see the annex for the study field development plan).

The Development Plan of the study field has been developed and approved by the Commission of the Study Direction. The commission of the study direction includes directors of all study programmes, leading teaching staff, representatives of employers, and a representative of students.

The development plan mainly took into account and included the recommendations of representatives of employers - leading industry experts on current developments in the field of security. Namely, it should be noted that the development of the study direction is influenced by a number of important circumstances:

- the increase in tensions in the international situation, as a result of which the costs to state security and the need to improve civil protection, state border control and other security measures are increasing;
- Improvement of the customs and tax education system in the European Union in accordance with the guidelines of the World Customs Organization, as well as the EU Framework of Customs and Tax Competences;
- Ongoing processes and reforms in the country, including in the field of education, as well as rtu in general.

The progress of the Development Plan of the study field and the implementation of the measures included therein are regularly discussed at the meetings of the Commission of the Study Field. If necessary, the Development Plan will be supplemented in accordance with international and national trends and priorities in the field of security.

### **2.1.3. The structure of the management of the study field and the relevant study programmes, and the analysis and assessment of the efficiency thereof, including the assessment of the role of the head of the study field 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 field.**

Internal quality control at the faculty and at the level of the study field 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 programme, 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 programme, the methodological materials, as well as study literature and methodological guidelines for study papers (reports, study papers, practical placement reports and graduation papers) are reviewed. The academic staff and the administration of the study programme participate in various exchanges and activities, cooperating with the higher education institutions 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 programme 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.

The Study field Committee includes directors of all study programmes in the specific study field, leading teaching staff, representatives of employers and a representative of students (see annex "RTU Study Field Management Structure"). The structure indicates that the Study Field Committee shall supervise the activities of the Study Field, performing an examination of the content and quality of implementation of study programmes of the study field at the end of each academic year, evaluating their conformity with the objectives of the study field, the requirements of the represented science sector and labour market, as well as taking into account the opinion of graduates and students regarding the quality of programmes. The Study Field Committee make decisions on different types of issues, which are further approved by faculty councils, while further communicating with the Study Department, which prepares drafts of Senate decisions (on the basis of decisions of both the Study Field Committee and Faculty Councils) for examination by the Senate Study Quality and Programmes Committee, where RTU Vice-Rector for Academic Affairs also participates and engages in discussion on relevant issues. Once the Study Quality and Programmes Committee of the Senate has reviewed and approved the draft of Senate's decisions, only then does it advance to the RTU Senate hearing.

RTU has established a robust system for the management and development of study programmes. Proposals to introduce any changes in the curriculum are made by the Study field 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 field 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 field. Amendments in the structure of study programmes are approved by the order of RTU Vice Rector for Academic Affairs. Technical support of the study field is provided by the Study Programme Record Keeping as well as RTU IT department. Such cooperation in the implementation of the study programmes of the study field is efficient and stimulates the development of the study field.

The Study Field Committee, composed of the leading experts in the field, plays an important role in improving study programmes and study processes (see Annex "Composition of The Study Field "Internal Security and Civil Protection" Committee").

At the level of the faculty and the study field, internal quality is ensured by the FEEM Council, the Study Field Committee, the head of the study field, heads of the study programmes, the administration of the institutes or departments implementing the study programmes, as well as the FEEM Student Self-government. Internal quality control at the level of the faculty and study field is ensured by the FEEM Deputy Dean for Academic Affairs or a person or committee delegated by the Deputy Dean.

To ensure the quality of the study field and the study programmes implemented therein, the FEEM Student Self-government and its members are involved, who actively participate in the decision-making bodies of the University, such as RTU Constitutional Assembly, RTU Senate, RTU Senate committees and FEEM Council. Once a year, FEEM Student Self-government organizes the Faculty Award “FEEM Pride”, where students have the opportunity to say “thank you” to the academic staff and employees of RTU FEEM for their work with students and contribution to the development of the Faculty. To find out the winners of the award “FEEM Pride”, representatives of the FEEM Student Self-government create a questionnaire in which students of Bachelor and Master study programmes have the opportunity to nominate academic staff members for certain nominations.

The study field “Internal Security and Civil Protection” at Riga Technical University is ensured by two organizational units – the International Business and Customs Institute and the Institute of Occupational Safety and Civil Defence.

RTU academic staff, as well as highly skilled specialists of SRS and State Fire and Rescue Service of Latvia with relevant education and work experience participate in the implementation of the study field programmes. RTU organizational units, their academic staff and technical personnel ensure the study process. The study field “Internal Security and Civil Protection” is implemented in cooperation with all institutes of FEEM:

- International Business and Customs Institute (IBCI);
- Institute of Occupational Safety and Civil Defence;
- Institute of Civil Engineering and Real Estate Economics;
- Institute of Business Engineering and Management;
- Institute for Quality Engineering.

The institutes and their departments ensure academic and methodological work: they create and update syllabi, ensure the delivery of relevant study courses, the supervision and viva voce of graduation papers, as well as carry out other activities related to academic, methodological and research work. In each of the institutes, the academic staff members representing the institute are involved.

Other RTU organizational units are also involved in the implementation of the study field programmes, such as the Institute of Applied Mathematics, Institute of Humanities, Department of Energy Systems and Environment, Institute of Applied Linguistics, Department of Engineering Mathematics, Department of Chemistry, Department of Heat Engineering and Technology, the Centre for Ecological Construction, Department of Probability Theory and Mathematical Statistics, Department of Software Engineering, Faculty of Electrical and Environmental Engineering, Institute of General Chemical Engineering, Department of Electrophysics, International Cooperation and Foreign Students Department, Department of Physics of Materials, Department of Engineering Pedagogy and Psychology, Department of Languages for Special Purposes.

### **Cooperation with the Department of Public Affairs (DPA) in promoting the latest industry news and attracting new students**

RTU Department of Public Affairs and its specialists make a major contribution to public relations and cooperation with the media. Several meetings have been held between the representatives of the International Business and Customs Institute and DPA and management to explain the content, specifics and the Institute’s interests in the coverage of customs and tax administration programmes, as well as to gain more support from DPA in representing the Institute's interests and training programmes and attracting students. It should be noted that RTU is basically a technically oriented university, the nature, scope and teaching methods of the study programmes “Administration of Customs and Taxes” are very different from the rest of the university. Overall,

over the years, DPA has helped organize a number of important interviews and successful dissemination of information through various information sources, ensuring both broad coverage of events and the selection of different information channels and reaching different audiences. Good and coordinated cooperation with the Public Relations Department of the SRS has also been ensured through joint coverage of events in the field of customs and taxation, such as the Museum Night at RTU History Museum of Customs and Taxes of RTU International Business and Customs Institute, the opening of the Customs Laboratory of RTU International Business and Customs Institute, the joint scientific conference of the International Business and Customs Institute and SRS "Is Customs Ready for Tomorrow?" and involving leading SRS experts and management in the representation and dissemination of university news and information.

Information sharing on RTU International Business and Customs Institute and RTU social networks is also coordinated in cooperation with RTU DPA, using RTU social networks and website. Cooperation with DPA also takes place in the framework of new student admission campaigns and related events. The target audience, methods and communication channels of the admission campaigns are discussed and agreed with DPA and media agencies, with the most optimal offer being selected. Video, graphic design and other services are also used in cooperation with DPA.

For examples of cooperation with RTU Public Relations, see Annex 1, Part 2.1.3.

In order to ensure the quality of the study programmes in the study field and the necessary support for the academic staff and students, both units (International Business and Customs Institute and Institute of Occupational Safety and Civil Defence) have professional teams and study programme self-assessment teams (see Appendix "Study Programme Self-Assessment Teams").

The study field involves **four heads of the study programmes. Eleven members of the general staff** support the processes of study organization, public and international relations, student records and technical support. Currently, the study field has **three study office managers**, whose main responsibilities are the supervision of the overall work of the office, the servicing of visitors, students and dealing with non-standard situations, the student record-keeping process, the coordination of telephone calls, emails and correspondence flows, the planning of the manager's work schedule, the organization of meetings, the simple financial accounting of the unit, the analysis, evaluation and control of documentation, the correspondence with cooperation organizations in Latvia and abroad.

There is **one public relations manager**, whose main duties and competences are to establish cooperation and maintain contacts with IBCI cooperation organizations in Latvia and abroad (including customs administrations, universities abroad, international organizations, including the World Customs Organization, the European Commission, etc.), to participate in the development of accreditation materials for the EC recognition of the programme "Administration of Customs and Taxes", to participate in international projects, to implement the public relations/marketing plan, to develop, implement and present a communication strategy for creative concepts in line with the creative brief, to create content for different types of information channels and sources, to maintain IBCI website and social networks, to organize partner visits and host delegations, to translate various materials and documents, to edit, proofread and coordinate texts, to oversee and coordinate the operation of RTU History Museum of Customs and Taxes, etc.

There is **one senior computer network administrator** whose main duties and competencies are to maintain, install, configure hardware and office equipment, to integrate various systems and solve compatibility problems, to plan and coordinate the functioning of systems, to analyze necessary improvements, to evaluate possible solutions and make recommendations to management, to plan and coordinate the functioning of systems, to analyze necessary improvements, to evaluate possible solutions and make recommendations to management, to

propose solutions to hardware/software connectivity problems, including regular system tests.

There are **three study office administrators**, whose main duties and competences are to participate in the organization of the study process and to provide methodological guidance to the study process, participate in the elaboration of the University's development plan and study programmes, advise academic staff by providing them with methodological assistance, promote staff professional development, perform job evaluation, diagnose training needs, as well as provide advice, information and documentation on practical placement opportunities, careers, draw up information materials, participate as a member of the practical placement report evaluation committee, etc.

There are **three heads of the laboratory**, whose main duty is to manage the laboratories of the study field, as well as to collect information about practical placement places where students can improve their practical skills in accordance with the requirements set out in the occupational standard and to provide information to students, to carry out preparatory work for the implementation of students' practical placement and provide consultations, to organize meetings with students before the start of the practical placement, to acquaint students with the aims, tasks and evaluation criteria of the practical placement, as well as with their rights and obligations during the practical placement, to inform students about various issues related to the practical placement.

The Faculty also has **a study planning and coordination specialist**, who is responsible for planning, coordinating and monitoring changes in the classes and facilities of the study programmes included in the field. In some study programmes, planning is also carried out by the organizational units, but the whole process is overseen by the Faculty's schedule planner to ensure the efficient use of premises and the optimal performance of the academic staff.

The FEEM Information and Service Centre has 3 student service officers who provide access and circulation of information to students, staff and other visitors.

The study programmes implemented within the study field are fully in line with the four main aims of higher education: personality, democratic society and research development, and meeting the requirements of the labour market. In order to ensure this relevance, an effective management and development strategy for the study field is based on the following principles:

- cooperation – all parties are involved in the development of the study field: academic staff, students, employers, local and national authorities, public organizations, etc.;
- systematicity – ensuring a cooperation and partnership approach in solving the issues of the study field development both within RTU and in cooperation with other institutions;
- succession – continuity in the pursuit of study and personal development goals, ensuring logical succession in study programmes and lifelong learning;
- sustainability – the soundness and balanced development of educational decisions;
- accessibility – all students have equal opportunities to obtain relevant education within the study field;
- coordination – an integrated approach to planning and implementing change, ensuring unified leadership and coordination of change across both different organizational units and levels and types of study programmes.

#### **2.1.4. 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 options for the students to have their**

**study period, professional experience, and the previously acquired formal and non-formal education recognised within the study field 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 Cabinet Regulations 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 programmes and the industry. The RTU Admission Regulations are approved by the RTU Senate and published on November 1 each year (see the files of Annex 29-35 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 15 percent. An applicant with a CE in mathematics of less than 15 percent may apply only for a tuition fee. Until year 2022 the CE rating minimal value was set at 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 programmes 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 the Cabinet Regulations 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 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 Regulations 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's 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. Every year, the RTU Senate approves the regulations for the admission of doctoral students for the study year, which set deadlines for the submission of admission documents. The applicants for Doctoral study programmes, can submit application for full-time studies by arriving at the Doctoral Studies Unit, bringing the required documents, within the admission deadlines. Documents necessary for the competition are compiled by RTU Doctoral Studies Unit. After the collection of documents, the Doctoral Studies Unit 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. The Ranking table is submitted to Admission Committee of doctoral students. The Admission Committee is approved by an order of RTU Vice Rector for Research.

Taking into account the spread of Covid-19 and in order to facilitate the admission process of applicants for studies at RTU, starting from the summer of 2020, the admission process was improved.

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>). Given the spread of Covid-19, with the summer 2020 admission, secondary school graduates of the 2019/2020 school year can approve the electronic application remotely without arriving in person. If the secondary education was obtained abroad or until 2019/2020 school year, the applicants must confirm their electronic applications by 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.

To apply for the state budget funded seats in the graduate study programmes RTU undergraduate study programme graduates can submit their applications online on RTU portal ORTUS. Taking into account the spread of Covid-19, with the summer 2020 admission, also graduates of other Latvian state-accredited higher education institutions' undergraduate study programmes can submit applications electronically on the RTU website, or by visiting RTU Admission Committee.

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.

Taking into account the spread of Covid-19 and in order to improve the RTU admission process and make it easier for applicants to apply for studies at RTU, with the summer admission of 2021, electronic application for studies for a fee has been introduced in undergraduate and higher level study programmes.

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) (available at <https://international.rtu.lv/study-regulations/> and in the file of Annex 09 of the List of Internal regulations).

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

Recognition of the study period, professional experience, prior formal and informal studies within the study field is a convenient and relatively simple procedure for students. The student should submit an application accompanied by the necessary documents on previous similar studies and/or professional experience to be assessed.

For the purpose of professional experience matching, students are required to submit a description of their professional activity, which is evaluated by a committee and a decision is taken on the relevance of the professional activity to the requirements of the study program. If necessary, an additional interview is possible to clarify any unclear issues.

*Examples within the study field:*

- The professional Master study programme "Occupational Safety" has evaluated the previous formal education documents of several students (acquired professional higher education and completed the professional development course "Occupational Safety and Health") as well as previous practical work experience as an occupational safety and health specialist and has recognised the previous education and experience in the professional field. As a result, the students have been matriculated in the professional Master study program. It is not possible to recognize the practical placement at this programme, as it is the only practical placement aimed at obtaining the empirical, quantitative and qualitative analysis necessary for the Master Thesis.
- In academic year 2021/2022, professional experience results of one student of the professional Master study programme "Occupational Safety" were recognised as relevant and corresponding to the learning outcomes of the practical placement (20 CP). At Riga Technical University, by the order of the Vice-Rector for Academic Affairs, the Commission for Recognition of Competencies Developed Outside Formal Education or from Professional Experience and Learning Outcomes Achieved was established to consider the possibility of recognising the study results of a student of the Master study programme "Occupational Safety". According to the criteria and procedure set out in the Regulations "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 by the decision of RTU Senate of 23 September 2019, Minutes No. 632), the Commission decided to recognise competences acquired outside formal education or from professional experience and learning outcomes achieved in previous education.

- In academic year of 2021/2022 a commission was established under the professional study programme "Fire Safety and Civil Protection", to assess the results of studies acquired by two students which were conducted outside of formal education, or acquired from professional experience and in a previous education. The Commission assessed the documents submitted by two first course students and, as a result, the Commission recognised the results of previous education and professional experience in order to align their practice with 20 CP.
- For students of the professional Bachelor study programmes who are matriculated at later stages of study, study courses acquired at the previous study level or in short-cycle professional education (college) study programmes are recognised if the relevant learning outcomes have been achieved in the study courses and their scope meets the requirements of RTU study programmes.

Annexes:

- 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.
- A sample of the study agreement.

#### **2.1.5. 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 30 May 2022, Minutes No 633), which is available on Studies Regulations page of RTU web page ([https://www.rtu.lv/writable/public\\_files/RTU\\_5.4.\\_7.4.studiju\\_rezultatu\\_vertesanas\\_nolikums\\_2022.pdf](https://www.rtu.lv/writable/public_files/RTU_5.4._7.4.studiju_rezultatu_vertesanas_nolikums_2022.pdf) (in Latvian); the English translation is in the file of Annex 04 of the 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.

In the study course descriptions of the study programme 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 on ORTUS e-study system 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. 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 programme 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).

The programs of the study field “Internal Security and Civil Protection” are implemented in compliance with the requirements formulated in the regulatory enactments, the agreed basic principles of study organization established by RTU, as well as following all the requirements formulated in the study courses. The evaluation principles, procedures and practices of students’ achievements at RTU are unified, they do not differ within the study field and its programs. The differences lie in the choice and use of the methods, as the assessment of students’ knowledge, skills and competences is carried out in accordance with the learning outcomes formulated in a particular study course.

#### **2.1.6. Description and assessment of the academic integrity principles, the mechanisms for 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 in the study field 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 2005, the Code of Ethics of RTU Students, Academic Personnel and Staff has been effective at RTU (see the file of Annex 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 (in Latvian available at [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), English translation is in the file of Annex 38 of the List of Internal regulations).

There are procedures defined, how the report on the violation of the student's academic integrity is filled, registered, reviewed, and appealed. Informing and educating students about the aspects of academic integrity takes place both within the study courses and in specially organized seminars.

Both students and academic staff have access to the book "Glossary for Academic Integrity" published by RTU publishing house (available at <http://www.academicintegrity.eu/wp/glossary/>).

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 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 Rīga Stradiņš University, develops educational aids, as well as participates in the establishment of the Latvian national academic integrity organization and development of plagiarism control tools.

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 thesis.

In addition to the general RTU procedure for the examination of graduation papers in both systems adopted in 2010, the Institute of Occupational Safety and Civil Defence has also developed a

mechanism for the control of papers, i.e. the initial examination is carried out during the inter-assessment process, during which the work of the advisory examination committee takes place. The student is required to submit an electronic version of the graduation paper and the paper is checked for plagiarism in the presence of the student using open-source plagiarism checkers, such as plag.lv.

During the elaboration of the graduation papers, students are repeatedly instructed about plagiarism and its consequences. The guidance material contains detailed instructions on the correct formatting of references. This process helps avoid plagiarism and points out weaknesses in the student's paper that need to be addressed. In cases where the plagiarism detection tool shows a textual match as a result of this preventive check, students have the opportunity to analyse the nature of the textual match with the member of academic staff, as the tool may recognize titles of normative acts, direct quotations of normative acts, references in the footnotes or RTU unified blank forms as textual matches. Preventive use of plagiarism checkers within the department provides a relatively accurate representation of the overall level of text matching and the difference from RTU Unified Computerized Plagiarism Control System (UCPCS) and Turnitin® system checks is within 3-5%. The percentage difference is due to the fact that both RTU systems also recognize the blank forms developed by RTU (title page, abstract, etc.) as well as the references placed in the footnotes as a textual match. When alert reports are received from the UCPCS and the Turnitin® system, the student and the scientific advisor are always informed of the results, as well as the person responsible for plagiarism checks.

Using both RTU systems for plagiarism detection, there were several cases where a student's graduation paper had up to 96% textual matching, with the average being between 4 and 56%.

In the study programme **"Safety Engineering"**, 39 graduation papers of students were checked for plagiarism from 2017 to 2021, the average percentage of text match in the graduation papers was 9-14%, and the highest percentage was 96%. In this case, a committee was immediately established and the circumstances explained. It was found that the student had made a mistake and uploaded a draft of his graduation paper instead of the final version. The committee allowed the original graduation paper to be resubmitted for plagiarism detection and after its checking the student was allowed to publicly present the graduation paper.

In the study programme **"Fire Safety and Civil Protection"**, 108 graduation papers of students were checked for plagiarism from 2017 to 2021, the average percentage of text matching in the graduation papers was 12-18%, and the highest percentage was 38%. In this case, the high percentage of matching text was due to citing of legal acts. Due to the specific nature of the study programme, students are often faced with the problem of having to cite a certain section of normative acts in support of their graduation papers, which they cannot retell in their own words, but accurate citation increases the percentage of textual match.

In the study programme **"Occupational Safety"**, 90 graduation papers of students were checked for plagiarism between 2017 and 2021. In the spring semester of academic year 2021/2022, RTU tool Turnitin® identified 38% of textual match in the graduation paper of the student of the professional study programme "Occupational Safety". The paper was found to have a 38% match with another author's paper, which was publicly presented in 2020 at one of the Latvian higher education institutions. Both the student and the scientific advisor were informed about the results. After examining the test report and discussing the case with the student, the scientific advisor wrote a service report to the Head of the Institute of Occupational Safety and Civil Defence, as a result of which the student was not allowed to publicly present the paper and had to rewrite the graduation paper on a different topic and publicly present it in the following academic year according to an individual plan.

In the professional Master study program **“Administration of Customs and Taxes”**, three cases of suspected breaches of academic integrity have been identified since the use of Turnitin® program. During the reporting period, one case of high textual match was reported by the Turnitin® system. The graduation paper was evaluated, and a decision was taken to allow the paper to be publicly presented before the State Examination Commission because the high textual match was due to citations of books and legal acts. In another case, a student had used data from a survey carried out by another student, without referencing it. The decision was therefore taken not to allow the student to publicly present the graduation paper. In the third case, a significant 37% match was identified with the work of a Master student at the Faculty of Business, Management and Economics of the University of Latvia. The department decided that the graduation papers of the latter two students should be rewritten on a different topic and publicly presented in the following academic year according to an individual plan.

Overall, it can be concluded that the process of educating the students has been very successful, as no cases of plagiarism have been detected and the number of cases of textual matches is small.

## **2.2. Efficiency of the Internal Quality Assurance System**

### **2.2.1. Assessment of the efficiency of the internal quality assurance system within the study field 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 field and the relevant study programmes.**

RTU operates pursuant to “Constitution of Riga Technical University”, which was approved by RTU Constitutional Assembly on 23 May 2022 (see the file of Annex 01 of the List of Internal regulations).

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 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 field is one out of 13 study fields implemented by RTU, and its internal quality management system accord and is integrated with 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 quality 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 quality 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. Within the framework of the EFQM model, student results are a separate criterion, and they are integrated with the main performance results of the university, thus ensuring that the quality of the study field is integrated with 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).

Quality model review report is drawn up with regard to the Quality Management System, which identifies the areas that should be improved. Performance indicators and results of student polling are integrated in RTU Quality Management System. Current data on RTU Quality Management System is collected in the PowerBI report, which shows the performance of the last years, set achievable goals and comparison with other universities or organizations.

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 is provided with feedback on process performance through process evaluation surveys. 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.

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 fields and programmes to be newly created, as well as changes to study fields and programmes, evaluate annual self-assessment reports of study fields. The internal quality assurance mechanism of studies at RTU is functioning at the level of administration, faculties, study fields and study programmes of the university.

Study field Committees at RTU supervise academic activities in the respective study field and are responsible for curriculum of the study programmes within the study field, including accreditation of the study field. Members of student self-government are involved in ensuring the quality of the study field 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.

In order to ensure the qualitative evaluation and preparation of the self-evaluation report of the study programmes of the study field "Internal Security and Civil Protection" already in academic

year 2017, the self-evaluation working groups of the study programmes (fields) were established and approved (on 24 May 2017, study field minutes No 22000-10.3/2); on 7 December 2021 the working groups were updated (study field minutes No 22000-10.3/5). The self-evaluation working groups are composed of the heads of the study programmes, leading academic staff of the programmes, experts in the field, student representatives in the relevant programme and responsible record keepers.

The internal quality assurance of RTU studies involves the departments and institutes implementing the study process, the faculty councils, the Office of the Vice-Rector for Academic Affairs, the Office of the Vice-Rector for Strategic Development, the Student Parliament and RTU Senate. These institutions comprehensively evaluate newly established study fields and programmes, as well as changes in study fields and programmes, and evaluate annual self-assessment reports of study fields. The internal quality assurance mechanism of RTU studies operates at the level of the university administration, faculties, study fields and study programmes.

At the faculty and study field level, internal quality is ensured by the FEEM Council, the Study Field Committee, the head of the study field, heads of the study programmes, the administration of the institutes or departments implementing the study programmes, as well as the FEEM Student Self-government. Internal quality control at the level of the faculty and study field shall be ensured by the FEEM Deputy Dean or a person or committee delegated by him/her.

In 2008, RTU FEEM joined the United Nations (UN) Principles for Responsible Management Education (PRME) initiative to support and implement all six Principles for Responsible Management Education (PRME) in its activities in the areas of purpose, values, methods, research, partnership and dialogue. PRME is the UN-initiated programme launched in 2007 at the UN Global Leaders' Meeting in Geneva. Its mission is to promote change in business and management education and research globally by developing universities' understanding of the UN Sustainable Development Goals through the framework of the Principles for Responsible Management Education. The PRME initiative aims to help improve the way universities operate, to improve the relevance of curricula, teaching methods, research and strategy to the new challenges and sustainable development guidelines of today's rapidly changing world, and to promote social responsibility in general by developing a new and progressive generation of entrepreneurs and business leaders who are able to successfully manage the complex challenges of the 21st century, both in business and in society at large. The PRME initiative is based on internationally recognized values – the principles of the UN Global Compact.

This period marks the fifth compilation of sustainability and social responsibility achievements for the March 2022 PRME Report. The FEEM submits the self-evaluation report, confirming its support for the global idea of the importance of education and research on sustainable development and socially responsible management, as well as demonstrating a genuine desire and commitment to their implementation at RTU. The FEEM conducts self-evaluation and draws up a compliance report once every two years; the reports are available electronically at: <https://www.unprme.org/faculty-of-engineering-economics-and-management>

Several additional activities were organized during preparation for the external evaluation.

- In order to ensure the full possible international recognition of the Bachelor and Master programmes “Administration of Customs and Taxes”, they were updated in 2019 in line with the revised WCO standards for the customs profession and in 2020 in line with the EU Customs Competency Framework. Both study programmes have therefore received WCO and EC recognition (accreditation) as meeting the qualification requirements.
- In 2021 and 2022, professional development workshops on the drawing up of the self-assessment report were held for the heads of the programmes, academic and support staff of



the International Business and Customs Institute and the Institute of Occupational Safety and Civil Defence;

- In January–February 2022, the meetings of the study field included discussions on the uniqueness of the study field and its study programmes in comparison with other similar study programmes in Latvia and abroad, as well as several working groups were organized to analyze the aims and tasks of the study field and perform SWOT analysis;
- In March–June 2022, the head of the study field, the Dean and Deputy Deans of the FEEM met with all heads of the programmes of relevant institutes and departments to discuss the results of the programme audit and programme development plans;
- In January 2023, the development plan for the study field “Internal Security and Civil Protection” was presented to the members of the FEEM Advisory Board, discussions were held, recommendations were listened to and clarifications were made.

Overall, we can conclude that the actions taken, as well as the close cooperation with leading organizations and business professionals who take an active part in both the work of the Study Field Committee and the study process, make it possible to ensure the sustainable effectiveness of the system.

The system in place allows for the rapid development of study programmes, taking into account both international and national safety requirements.

**2.2.2. Analysis and assessment of the system and the procedures for the development and review of the study programmes by providing specific examples of the review of the study programmes, the aims, and regularity, as well as the stakeholders and their responsibilities. If, during the reporting period, new study programmes have been developed within the study field, describe the procedures of their development (including the process of the approval of study programmes).**

Study programme development and revision processes are regulated according to the "Procedure for Application, Elaboration and Amendment of the Study Programmes" (published at [RTU\\_studiju\\_reglaments\\_4.6.\\_programmu\\_izstradasanas\\_kartiba.pdf](#) (in Latvian); the English translation is in the file of Annex 06 of the 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 Field Committee. The responsibilities and activities of the committees are regulated by the “Regulation on the Study Field Committee” (approved at the RTU Senate on 26 April 2021, Minutes No 649; published at [RTU\\_studiju\\_reglaments\\_4.7.\\_studiju\\_virziena\\_komisijas\\_nolikums.pdf](#), (in Latvian); the English translation is in the file of Annex 07 of the List of Internal regulations).

Expert assessment of the study programme is performed by the Study Field 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 Field Committee evaluates the quality of the draft study programme and the compliance of its curriculum to the planned aims and tasks.

Study programmes are developed and revised based on the requirements of the relevant occupational standards. During the period under review, a number of changes have taken place in



both the development and the approval procedures of the occupational standards. A number of existing occupational standards have been revised with the participation of the study field academic staff, and new ones have been developed and approved in accordance with the established procedures. For example, the occupational standard “Tax Economist” was revised.

The occupational standard “Head of a Structural Unit of a Customs Office” was replaced by the occupational standard “Customs Functional Manager” and a new occupational standard “Head of Customs and Tax Administration” was developed.

The occupational standard “Chief Specialist in Occupational Safety” corresponding to the professional Master study programme “Occupational Safety” was reviewed and approved at the meeting of Tripartite Sub-Council for Cooperation in Vocational Education and Employment on 9 February 2022.

Within the professional Bachelor study programme “Safety Engineering”, a new occupational standard “Occupational Safety Engineer” was developed and approved at the meeting of the Tripartite Sub-Council for Cooperation in Vocational Education and Employment on 8 June 2022 (the old occupational standard was “Chief Specialist in Occupational Safety”).

The occupational standard “Fire Safety and Civil Protection Engineer” for the first cycle of the professional higher education study programme “Fire Safety and Civil Protection” was updated and submitted for consideration in 2022.

Accordingly, study programmes were updated in line with the requirements of the revised occupational standards.

In order to obtain feedback on the study programmes, a student survey is conducted every semester. It is regulated by the Regulation on Student Surveys for the Evaluation of the Study Process. The survey is conducted electronically in the ORTUS environment, the results are received by each academic staff member personally and by the head of the organizational unit. The results are discussed in a summarized form at meetings of a respective department, at the meeting of the Study Field Committee and at the meeting of the Faculty Council.

Graduate survey is conducted before each graduation ceremony. Surveys of employers and graduates of previous years are also carried out regularly. The results are discussed at methodological seminars and taken into account in the improvement process of study programmes.

Abstracts and syllabi of courses, methodological materials, the latest teaching literature and methodological guidelines for study papers (reports, study papers, practical placement reports and graduation papers) are reviewed once every academic year.

The Study Field Committee analyzes the recommendations of employers and external experts and organizes the implementation of changes in study programmes.

Employers, as RTU students’ practical placement providers, draw up an online review of the student’s knowledge and skills at the end of the practical placement, thus also assessing the relevance of the knowledge provided by the study programme to industry needs.

RTU obtains employers’ opinions from the Advisory Board, sectoral associations, as well as from employers’ evaluations on the portal <https://www.prakse.lv/> (RTU has been the most recommended university by employers for several years in a row - <https://www.prakse.lv/top>).

When developing study programmes, it is important to comply with the requirements of international organizations in the education and training of specialists in the field. For example, the study programmes “Administration of Customs and Taxes” was revised following changes in the

WCO professional standards for customs profession in 2019 and the approved EC Customs Competency Framework and a common EU training programme for customs officers and customs clients in 2020. As a result, the programmes are recognized by both the WCO and the EC. Consequently, RTU issues a diploma of higher education and the WCO and EC certificates that attest that the study programmes meet the requirements of both the EU and global customs training standards.

On 10 April 2018, RTU FEEM Council approved the Rules of Procedure of the Student Self-government of RTU Faculty of Engineering Economics and Management (Decision No 22000-1.2/31). The rules are binding on all members and activists of RTU FEEM Student Self-government. The rules define the structure (positions) and duties of RTU FEEM Student Self-government. The goals of the RTU FEEM Student Self-government are to represent the students of the FEEM; to defend the academic and social rights and cultural life interests of students at the FEEM and RTU and to promote a creative, innovative, learning and recreational environment at the FEEM. During the academic year, the Regulation of the RTU Academic Group Leaders is observed, which provides for a meeting of each programme group leader with the head of the study programme once a semester. These meetings allow making necessary changes in the study process, including improvement of individual study programmes.

To ensure the quality of the study field and the study programmes implemented therein, the Student Self-government of the faculty and its members are involved, who actively participate in the decision-making bodies of the university: RTU Constitutional Assembly, RTU Senate and its committees and the Faculty Council. The Student Self-government conducts a student survey, which is used to find out the students' opinion and to receive recommendations on both the necessary improvements in the study courses and the possibilities of improving the work of the academic staff. Once a year, RTU FEEM Student Self-government organizes RTU Academic Excellence Awards. Candidates are nominated on the basis of the results of student survey. The academic staff members of the study field have been repeatedly recognized as the best lecturers of the year.

In the academic year 2017/2018, the FEEM Student Self-government developed the proposals for the assessment of learning outcomes and the guidelines for passing examinations based on best practices. It should be noted that the aforementioned documents are now used in the study process.

Changes to the study programmes are made regularly as necessary, taking into account the latest trends and developments in the field, both internationally and nationally. For example, changes to the study programmes "Administration of Customs and Taxes" were made due to changes in the WCO Occupational Standards in 2019, the introduction of the EC Customs Competency Framework and corresponding requirements for customs officer training programmes in 2020, the new national occupational standards "Customs Functional Manager" and "Head of Customs and Tax Administration", as well as the requirements of the revised standard "Tax Economist".

The relevant changes in the study programmes were discussed at the meetings of the department, study field, FEEM Council and approved by RTU Senate.

**2.2.3. 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 field and the relevant study programmes are communicated by providing the respective examples.**

In order to continuously improve the quality of studies and provide students with the opportunity to submit proposals and complaints on various study-related issues in accordance with the ESG, in the reporting period from 2013 to mid-2019, at RTU, 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 students' 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 procedure stipulates how RTU students can submit suggestions and complaints concerning the study process and other issues, determine the terms for consideration and reply to applications (if the applicant has provided contact details) and prepare a summary of application statistics.

From May 2022 to March 2023, a total of 100 complaints/proposal applications have been received, of which 55 were submitted anonymously and 45 openly. Among the applications, 18 complaints, 75 problems and 7 proposals have been submitted. Submissions on ten topics (topic: number of complaints or problems / number of proposals):

International students questions: 6/0

Other: 11/1

Study process: 55/1

IT issues: 6/3

Maintenance of infrastructure issues: 4/1

Culture: 1/0

Accommodation: 4/0

Scholarships: 4/1

Work environment: 1/0

Vacations: 1/0

Analyzing the number of anonymous complaints, we can conclude that the number mostly consists of international students' submissions, where the anonymity is based on some system error, because the majority of anonymous submissions have the applicant's signature under the description of the problem, but it is not visible in the application form.

At the beginning of 2023, a total of 41 submissions have been received regarding a sudden change in the teaching format from correspondence to face-to-face, which constitutes 41% of all submissions submitted during this period. Evaluating the remaining submitted complaints regarding the study process, mainly the complaints are about the attitude and communication of the teaching staff, as well as inreachability in electronic communication regarding study issues. Comments were also received on topics such as the methods used in the study process; on the organization of face-

to-face classes while the study process is planned remotely; on the procedure for submitting final papers for foreign students; someone has mentioned that there is insufficient inventory to ensure the study process. Several complaints have also been received about the fact that the next semester's schedule is not available in time. It should be mentioned that the Latvian students also recommended to review the lecture schedule and not to schedule one lecture per day, especially if it is face-to-face, because a large number of students do not live in Riga or very close to Ķīpsala, therefore, more time has to be spent on the way to one lecture than in the learning process itself. There was contact with the unfairness of final grade evaluations.

Other issues include problems such as loss of personal belongings; the amount of the deposited deposit for living in the dormitory has not been received.

The IT department has received a proposal regarding the first contact of new students with the university, there is not enough information about the first steps. The portal ORTUS contains outdated information. Several proposals for calendar synchronization have been received again. Problems with activating the mandatory student edu.rtu.lv e-mail. There have also been issues with creating a MS Teams student profile.

In the field of maintenance, a recommendation has been received to carry out large mechanical/economic works in the later hours at day, not in the morning, because the residents of the dormitory are still sleeping, especially during the final periods of the semester. Also received a comment about the unavailability of class schedules at the portal ORTUS. Complaint about complex room access system for employee's identification cards.

There were no clear conditions for scholarships, how and where to apply. Two complaints were received from same person about not receiving the scholarship when it was supposed to. As there was a misunderstanding between the scholarship approval and only approval of the received application, here is a suggestion for improving communication.

In the cultural field, it is recommended to think carefully about the event on the first of September in the Colonnade, because, unfortunately, only the front rows can see and hear the entire program, and those standing further down neither see nor hear what is happening.

In dormitory mostly have problems with the presence of various insects in both shared and personal rooms, where the comment that the resident has been facing this problem for two years. Complaints also about the noise of neighbouring residents.

The list of problems and complaints of foreign students mainly consists of comments about the change of study format and its announcement only a week before the change.

In addition to the existing system at RTU, the FEEM administration and the management of the study field constantly monitor the study process and always listen to students' suggestions and complaints and make sure that all issues are resolved. Every semester, the group leaders of each programme of the study field, together with representatives of the FEEM Student Self-government, organize a meeting with the head of a respective study programme to discuss improvements in the study process and students' proposals.

Within the study field, democratic relations are established among the administration, academic staff and students. If any disagreements or misunderstandings arise between academic staff and students during the study process they are resolved at the level of the programme administration or management, i.e., by the head of a respective study programme or office administrator. In such cases, the usual practice implemented by the head of a respective study programme is to listen to both parties and, through further dialogue, to resolve the dispute or misunderstanding between students and academic staff by finding a mutually acceptable solution to the problem. This practice

promotes a student-centered approach and prevents student complaints from escalating to the point where they need to be resolved at RTU senior management level. Therefore, there is only one such case within the study field when a student complaint against an academic staff member was forwarded for consideration according to the formal procedure upon written request of the students.

During the reporting period (since academic year 2013/2014), a small number of written complaints were received within the study field, all of which were handled in accordance with the established procedure. Some examples are provided below.

**a) Complaint against a lecturer of the course “The English Language”.** A group of 1st year students of the professional Bachelor study programme “Safety Engineering” submitted a complaint about the unacceptable pedagogical approach of the lecturer and the fact that the lecturer evaluated the opinion expressed by the students rather than the knowledge of the language, which was unacceptable in the study process. Moreover, according to the Regulation on the Assessment of Learning Outcomes approved by RTU Senate, the final grade of a course is a summative assessment, which in this case would not be objective. The FEEM Dean resorted to the Head of RTU Institute of Applied Linguistics to change the lecturer for both groups of students in order to avoid possible negative consequences in the study process. The lecturer was replaced immediately. All issues are being resolved constructively within the study field. In the case of any complaint or student application, the matter is investigated in accordance with the procedure and a committee is established, which in all cases includes representatives of the FEEM Student Self-government.

**b) Appeal against the assessment of Bachelor Thesis.** The student felt that the Bachelor Thesis had not been assessed objectively and was therefore marked too low. The student complained that the members of the committee did not introduce themselves, so she was not confident in the ability of the committee members to assess her work, the committee did not ask the right questions, did not explain why her work was marked the way it was, etc. Explanations were received from the scientific advisor, the reviewer, the secretary of the State Examination Committee, the Head of the Department of Customs and Taxes. Conclusion – the appeal claims are unfounded.

**c) Complaints about the calculation of scholarships.** A student was not awarded a scholarship because she had a lower average grade. Lower grade was due to a different number of examinations and tests in the specialization of customs v.s. the specialization of taxes. Therefore, by decision of the Department of Customs and Taxes (No 22315-2/2 of 16 February 2018), the examination was replaced with a test. This way, the number of examinations and tests per semester was made equal in the two specializations of the same programme.

**d) Several complaints were received in relation to the organization of studies during the COVID-19 pandemic.** The complaints were related to the way of students’ knowledge assessment in distance learning mode. In order to find out whether these problems were unique to the group in question or whether similar problems existed in other groups, an in-depth study of the problem was carried out, involving student group leaders and lecturers. The conclusions and concrete measures to improve the study process were finally discussed at a joint meeting of the head of the study programme and the group leaders. As a result, lecturers were changed within two study courses, clarifications were made in the knowledge assessment procedure, as well as increased requirements were imposed to meet the requirements of the special English language programme. The Student Self-government, in turn, took the responsibility for discussing with the student groups such issues as the compliance with test deadlines, warning against plagiarism, etc.

**2.2.4. Provide information on the mechanism for collecting the statistical data, as developed by the higher education institution/ college. Specify the type of data to be collected, the regularity of collection, and the way the information is used to improve the study field. Describe the mechanism for obtaining and providing feedback, including with regard to the work with the students, graduates, and employers.**

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 RTU core activity process "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 percent of graduates of RTU undergraduate study programmes continue studies at graduate study programmes.

The data in the quality review that is submitted to RTU administration are analysed by study level, by faculty and study field. 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 on ORTUS e-study system 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, Annex 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).
- 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).
- 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 are used for the following purposes:

- Improvement of the study field. 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.

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

- When starting studies at RTU, a survey of students is conducted about expectations from studies, availability of information, admission process. The survey is conducted electronically on the portal ORTUS.
- 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 both in the middle of the semester and at the end of the semester. Polling is conducted electronically in portal ORTUS, the results are received by each instructor personally and the head of the organizational unit. The summary of the results is summarised at department meetings, at the meeting of the Study field 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 field 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. The summaries of results are published on portal ORTUS. The results are taken into consideration in the improvement of Doctoral study process and the quality of support provided to doctoral students.
- It is also planned to run regular centralised polling of RTU employers. Polling of employers presently takes place at the end of practical placement 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 RTU.

Employers, as providers of the practical placement 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 programme 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 [prakse.lv](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 by the resolution of RTU Vice-Rector for Academic Affairs No 02000-1.1-e/9 as of 1 February 2021; published at [https://www.rtu.lv/writable/public\\_files/RTU\\_anketesanas\\_nolikums.pdf](https://www.rtu.lv/writable/public_files/RTU_anketesanas_nolikums.pdf) (in Latvian); the English translation is in the file of Annex 20 of the List of Internal regulations).

Study programme study course abstracts and course programmes, methodological materials, newest educational literature and methodological instructions for study papers (reports, study papers, practical placement 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 field 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. In order to ensure the transfer of experience from graduates, the RTU Alumni Association provides mentor training, database maintenance, as well as mentors and mentee matching. The RTU Alumni 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 RTU Alumni Association; it gathers the respective year graduates from all nine RTU faculties, academic and general staff, as well as guests.

**2.2.5. Specify the websites (e.g., the homepage) on which the information on the study field 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 (State Education Information System (VIIS), E-platform).**

Detailed information on the study field 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 fields, 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://stud.rtu.lv/rtu/discpub/list?english=true>)

- (responsible person – G. Alksnis, Head of the programme 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://international.rtu.lv>, <https://apply.rtu.lv>) (responsible person – I. Tipāns, Director of the International Cooperation and Foreign Students Department);
  5. Higher Education Quality Agency [E-platform](#) (responsible person – G. Alksnis, Head of the Program Management and Curriculum Design Unit);
  6. State Education Information System (responsible person – I. Pujats, Project Manager of the Information Technology Department);
  7. FEEM website section on study programmes implemented in Latvian: <https://www.rtu.lv/lv/ievf/toposajiem-studentiem-ievf/studiju-programmas-ievf> (responsible person M. Smirnovs, FEEM Senior Computer Network Administrator);
  8. FEEM website section on study programmes implemented in English: [http://feem.rtu.lv/?page\\_id=4080](http://feem.rtu.lv/?page_id=4080) (responsible person M. Smirnovs, FEEM Senior Computer Network Administrator);
  9. Website section on study programmes implemented in Latvian by the Institute of International Business and Customs (information in Latvian): <https://sesmi.rtu.lv/studiju-programmas/> (responsible person M. Kačajevs, Senior Computer Systems and Computer Networks Administrator, Department of Customs and Taxes);
  10. Website section on study programmes implemented in Latvian by the Institute of International Business and Customs (information in English): <https://sesmi.rtu.lv/study-program/?lang=en> (responsible person M. Kačajevs, Senior Computer Systems and Computer Networks Administrator, Department of Customs and Taxes);
  11. Website section on study programmes implemented in Latvian by the Institute of Occupational Safety and Civil Defence (information in Latvian): <https://dcai.rtu.lv/> (responsible person S. Šķēle, Research Assistant of the Institute of Occupational Safety and Civil Defence).

## 2.3. Resources and Provision of the Study Field

**2.3.1. Provide information on the system developed by the higher education institution/college for determining and redistribution of the financial resources required for the implementation of the study field and the relevant study programmes. Provide data on the available funding for the scientific research and/or artistic creation activities, its sources and its use for the development of the study field.**

According to the Conceptual Report “Introduction of a New Higher Education Financing Model in Latvia” approved by the Cabinet on 29 June 2015 (<http://likumi.lv/ta/id/274944-par-jauna-augstakas-izglitibas-finansesanas-modela-ieviesanu-latvija>, 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 the 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 seats. Determination of the number of state budget funded study seats are regulated by Sections 51 and 52 of the Law on Higher Education Institutions (<http://likumi.lv/ta/id/37967-augstskolu-likums#p-50515>, (in Latvian)).

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 seats 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 seats determined by the state at RTU, as well as the state-defined study seat 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 seat costs in the respective thematic area of education in relation to the basic costs of the study seat.

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

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

$F_s$  – the amount of study financing;

$T_b$  – basic costs of the study seat;

$k_i$  – coefficient of the study costs in the relevant field of education (Annex 1 to the Regulations);

$n_i$  – the number of study seats for a higher education institution or college at undergraduate and professional study programmes in the relevant thematic area of education;

$m_i$  – the number of study seats at the Master study programmes in the relevant thematic area of education;

$S_b$  – study seat social security expenses at undergraduate, professional and Master study programmes (Annex 2 to the Regulations).

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

Each year, the Ministry of Education and Science calculates the basic costs of a study seat 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 seats in the respective academic year is distributed in accordance with the decision of RTU rector "Methodology for the distribution and use of funding for the structural units of RTU in academic year 2022/2023" (see the file of Annex 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.

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 rector or as stipulated by the Vice-Rector for Finance.

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 both local and foreign fee-paying students) 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;
- Debtors' payment funds (including recovered) are distributed twice a year (October and April) in one payment;
- 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 annually in October.

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. Third, since the academic year 2019/2020, deans of the faculties have additional funding from the tuition fees of foreign students.

In the academic year 2020/2021, RTU has made changes in the Methodology to ensure that the basic state budget funding for the provision of study seats is distributed by study programmes and thematic areas of study courses, ensuring precise distribution of funding according to the indicators by which RTU receives the state budget funding. In addition to the seats financed by the state basic budget, the study programme financing also consists of tuition fee revenue from the resources of natural or legal persons, 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.

Until academic year 2021/2022, the funding from foreign fee-paying students in a respective academic year was allocated in accordance with the Resolutions 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 Annex 41 of the List of Internal regulations; hereinafter – Methodology2). It was revised and approved every year taking into account necessary changes.

Starting from 2022/2023 acad. year RTU has one "Methodology of funding distribution and utilization for RTU structural units" approved by the order of the rector, which includes the distribution and utilization of funding from the state funds, local student fees, and foreign student fees. This year, RTU made significant changes in the Methodology in order to bring the principles of distribution of foreign fee-paying students closer to the principles of distribution of local fee-paying students, thus facilitating the work process responsible for the realization of study programmes – both by bringing the funding distribution periods and principles closer.

Analysing the financing procedure of the study programmes and the study fields 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 (starting from 2022/2023. acad. year, the principles of calculation for foreign students have been equated to the principles of calculation for local students). 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 the 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 an 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.

The following thematic areas of study courses of the study field and the applicable coefficients:

<b>Thematic area of RTU study courses</b>	<b>RTU coefficient</b>
Civil and occupational safety	2.9
Civil defence	4.2
Computer training	2.42
Economics	1.4
Mathematics and statistics	2.42
Internal security and customs	4.2
Pedagogy	1.67
Social sciences	1.4
Sports	2.0
Management and administration	1.4
Languages	3.2
Logistics	1.8

In order to ensure the functioning and sustainable development of study programmes, RTU has been improving the Methodology and previously also 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 20 senators (the count might vary) - 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 develop a new version of it for the next academic year for approval by the RTU Senate 35 senators. After the Senate has agreed on the Methodology draft and

its main principles, the rector approves the Methodology. It should be noted that historically changes in the Methodology have been proposed after performing a thorough analysis, including mitigation of their possible negative impact on the implementation of study programme study courses.

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 Science 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 two project calls a year with internal funding. The first call is an internal funding project competition to support master's students. The purpose of the competition is to increase the number of highly qualified master students at RTU who are able to create internationally cited scientific publications and continue their doctoral studies, thereby strengthening the development and capacity of RTU scientific staff. The purpose of the competition corresponds to RTU strategy – to promote the employment of graduates at RTU after the end of their studies, and increase the number of internationally recognized scientific publications, the development of high-quality scientific research that is integrated into the study process. The result of such a project is a master's student employed in scientific activity, at least one full-text publication submitted and accepted for each grant recipient, a scientific article in a journal or a full-text publication in a conference proceeding, the scientific assistant's skills in doing science and research are promoted, and the continuation of the master's student studies in RTU doctoral program is promoted. For three years, the annual budget of the competition is 120,000 euros, thus supporting at least 17 master's students every year.

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 regulation documents are usually approved by the Science 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 program and other. Research projects funded by the EU Structural Funds are administered by the Office of Vice-Rector for Strategic Development.

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.

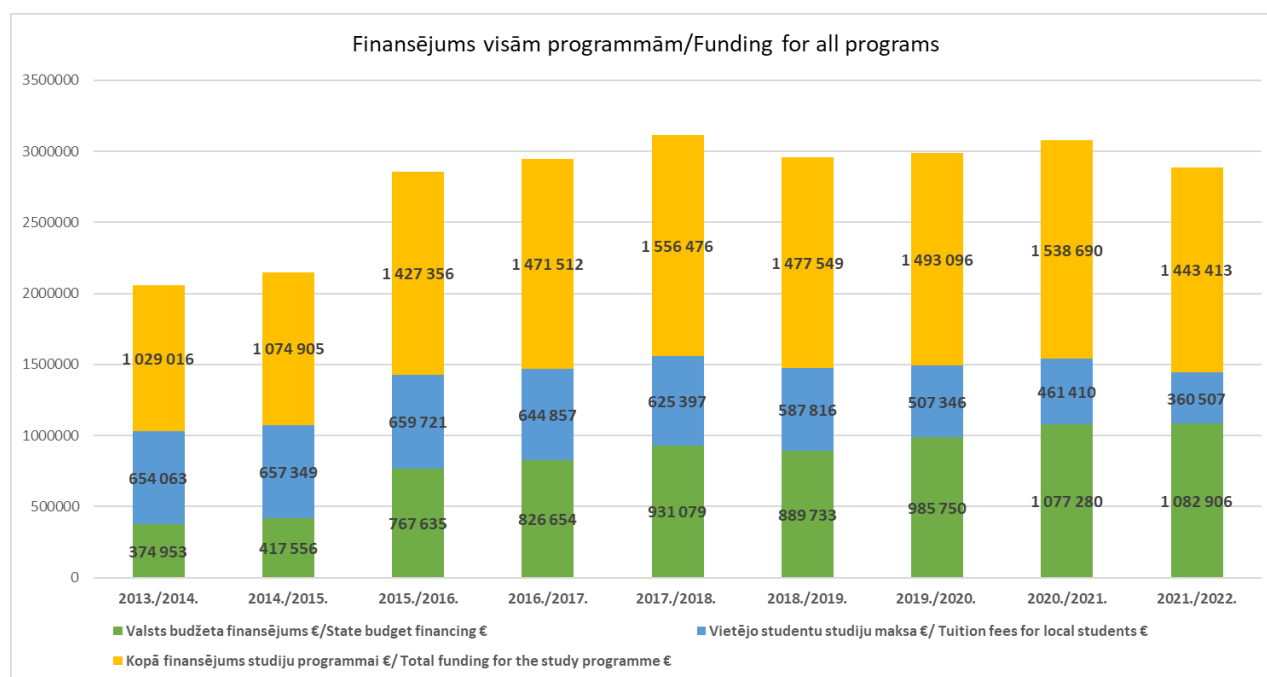
In the academic year 2019/2020, 54 RTU doctoral students received a doctoral research grant. In

the academic year 2020/2021, 75 RTU doctoral students received a doctoral research grant. In the academic year 2021/2022, 99 RTU doctoral students received a doctoral research grant. Financial amount for one doctoral grant is 10,000 EUR. Beneficiaries were elected to the position of research assistant or researcher. The aim of RTU doctoral grants is to support research related to the doctoral thesis and to promote the defence of the doctoral thesis and to promote the defence of the doctoral thesis in the 4th year after the commencement of doctoral studies.

There are grants available to the doctoral students of the study field (scholarships, lump sum grants, competitive grants, Erasmus + program funding, etc.). The information is available on the RTU homepage: [Scholarships and grants | Riga Technical University \(rtu.lv\)](https://rtu.lv). Baiba Šmite- Roķe is a PhD student and has been involved in the study process using the ESF 8.2.2. grant in the RTU project " Strengthening of PhD students and academic personnel of Riga Technical University and BA School of Business and Finance in the strategic fields of specialization" since 2022.

Since the beginning of financial year 2018/2019, in addition to information on the budget of each organizational unit, a regularly updated overview of the overall financial results of the study process at the Faculty has been provided to the heads of FEEM organizational units, thus providing not only the Dean but also the directors of institutes, the heads of departments and other units with objective information on the performance results. The introduction of the report not only ensures transparency of information, but also enables the Dean of the Faculty and the Council to react promptly in situations where this is necessary, for example in the case of revisions of individual expenditure items within the overall funding.

Between 2013 and 2022, the total funding for the study field "Internal Security and Civil Protection" was EUR 12 512 012.



**Figure.** Total funding for the study field

During the reporting period, the total funding for the study field "Internal Security and Civil Protection" was on an upward trend. Between 2013 and 2022, the total funding increased 1.4 times. This is due to the fact that budget funding increased 2.7 times, mainly due to application of the higher coefficient for the study field when calculating the funding. At the same time, there has been a 1.8 time decrease in revenue from the local student fees. Consequently, there has been a change in the revenue structure. While in 2013 the revenue from student fees accounted for 63.56%, in 2022 it accounted for only 24.98% of the total budget. The main reason for this is that



along with the application of the increased study field coefficient in the calculation of the budget funding for the study field programmes, there was a requirement to increase tuition fees for students who did not receive state budget funding. As a result, the number of new students paying the tuition fee fell sharply, in view of the relatively low ability of students to pay. The situation is similar for all study programmes in the study field. The changes have been particularly significant for the study programmes "Administration of Customs and Taxes". For example, in the Master programme "Administration of Customs and Taxes", there are no tuition fee paying students at all. On the other hand, only 12 and 10 students respectively were enrolled in the full-time Bachelor programme in the last two academic years.

*Table. Full-time student enrolment and tuition fees in the professional Bachelor programme "Administration of Customs and Taxes"*

Academic year	Enrollment in the 1st year		Tuition fee per year, EUR
	State funded seats	Tuition fee paying students	
2016/2017	40	75	1650
2017/2018	14	55	1700
2018/2019	24	37	2300
2019/2020	26	31	2350
2020/2021	36	26	2400
2021/2022	20	12	2550
2022/2023	20	10	2600

This situation, given that the current level of budgetary funding is maintained, does not pose an immediate threat to the future implementation of the study programmes. However, if tuition fees continue to increase and the number of state budget funded seats, and thus also the level of funding, remains unchanged over the next two years, the number of students paying the tuition fee, as well as the overall number of students in the study field will decrease. This may make it more difficult to further develop the study programmes of the field. (See Annex: Funding by Positions by the period from 2013-2022)

Even now, when analyzing the structure of the study expenses, one can see that the expenses for salaries are around 50% of the total costs of the programme implementation, depending on the study programme or more than 60% of the total expenses with social payments taken into account. As the number of students drops, the salaries of lecturers will not decrease proportionally to the change in the number of students and, therefore, the share of salaries in the total costs will only increase. At the same time, it should be borne in mind that the country's needs for internal security specialists are not being met today. For example, currently, the SRS staff turnover has reached

16% per year. This means that the SRS needs about 560 additional specialists every year. A significant number of new specialists are also required for economic enterprises, in logistics, transport, etc. RTU is the only educational institution in the country whose study programmes fully comply with the occupational standards employed by the SRS. With the current number of students in the study programmes "Administration of Customs and Taxes", RTU cannot meet the needs for new specialists of the SRS alone. The solution could be to increase the number of state budget funded seats in the study field, to address co-financing of studies, to change the funding model for studies, etc. However, the solution to these problems does not depend on RTU.

*(see also the description of each study programme in Part III of the report)*

**2.3.2. Provide information on the infrastructure and the material and technical provisions required for the implementation of the study field and the relevant study programmes. Specify whether the required provision is available to the higher education institution/college, available to the students, and the teaching staff.**

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 from 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 Green Metric Ranking (<https://greenmetric.ui.ac.id/rankings/overall-rankings-2022/rtu.lv>), which recognizes RTU Ķīpsala campus as the 55th greenest campus in the world. In the Baltic region, RTU is a leader in terms of green thinking infrastructure.

To reduce human impact on the environment and climate change, RTU has introduced the concept of Green Ķīpsala at its campus by improving its infrastructure in compliance with sustainability principles, changing student and staff habits, and using innovative green products and technologies developed by RTU researchers in Ķīpsala campus 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/>; in Latvian) 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 student accommodations (Āzenes 22a, Riga).

Other elements of RTU infrastructure are also available for the needs of students and lecturers - canteens and cafes located in each of RTU complexes, photocopiers, hostels, RTU sports and recreation centres, swimming pool, etc. RTU premises are equipped with drink and snack vending machines.

Wi-Fi is provided in all classrooms of the campus which allows students to access study materials placed on the RTU study portal ORTUS.

The Faculty of Engineering Economics and Management (FEEM) is located at Kalnciema Street 6, Riga. The Faculty has a good location, with an easy access to public transport stops, cafés, shops and a sports centre. The total area of the building is 6627 m<sup>2</sup> with five floors above the ground and a ground floor. There are bicycle parking facilities and more than 50 parking spaces. The Faculty is accessible for people with disabilities. The territory is landscaped, with asphalted driveways, paved sidewalks, lawns and benches.

The Faculty building has toilets on each floor and a specialized water drinking fountain. There is a lift, an open-plan cloakroom and reading room, several lounges, student study rooms, lecture halls and academic staff offices, meeting rooms, the History Museum of Customs and Taxes, and a café.

The educational building at Kalnciema Street 6 has 133 premises in total:

- 1) 30 auditoriums;
- 2) 5 laboratories;
- 3) 2 rooms for the Dean's Office;
- 4) 33 classrooms;
- 5) 29 academic staff rooms;
- 6) 2 resource rooms;
- 7) 1 Student Self-government room;
- 8) 1 meeting room;
- 9) Museum of History of Customs and Taxes;
- 10) FEEM History Museum;
- 11) Canteen (currently closed);
- 12) 27 ancillary rooms, sanitary facilities, storage and cloakroom.

The implementation of the study field is related to the material and technical facilities and infrastructure of RTU, FEEM. The study process and scientific activities of the study field “Internal Security and Civil Protection” take place in RTU buildings in Riga: Kalnciema Street 6 and the entire RTU Ķīpsala campus, which includes the library, sports complex and other infrastructure elements described above.

RTU FEEM, at Kalnciema Street 6, continuously monitors the quality of premises and technical equipment. Appropriate classrooms have been equipped with the necessary multimedia equipment at Kalnciema Street 6:

- 1) Laptops and tablets 71;
- 2) Desktop computers 130;
- 3) Monitors 125 ;
- 4) Copiers, including scanners 12;
- 5) Projectors 38 ;
- 6) Printers 42 ;
- 7) Portable data terminal with label printer 2;
- 8) TV sets 2;
- 9) LCD panels 5.

To ensure the study process, classroom equipment is upgraded every year and cosmetic renovations are carried out in classrooms and halls. Since September 2019, the four large auditoriums at Kalnciema Street 6 have been equipped with HP Shareboard digital cameras, which allow capturing and storing in digital form everything that is written on a regular whiteboard during a lecture. All the materials can later be accessed and used by students digitally in the RTU e-learning environment ORTUS.

There are two computer rooms specially designed for the students majoring in Customs and Taxes as well as for the participants of the professional development courses. The students have access to specialized software from these computer rooms.

To keep up-to-date with the latest information on customs and taxes, both academic staff members and students have access to the European Commission’s (TAXUD) database, as well as to the WCO (World Customs Organization) and SRS (State Revenue Service) databases.

In 2018, all classroom projectors were replaced with new ones. In 2019, all classroom computers were replaced with new ones, as well as 19 new computers were purchased for the FEEM computer room, thus enabling students to use the latest versions of software in the study process.

Academic staff rooms are equipped with modern desktop or laptop computers, as well as printing, copying and scanning equipment.

Following modern trends towards greater use of mobile or portable devices in the study process, wireless network coverage has been extended. In 2020, additional wireless access points were installed to improve coverage and increase network data speeds.

Every RTU student and employee has open access to the Office365 platform with the possibility to use its features, including Word, PowerPoint, Excel, OneNote and Outlook web versions, personal cloud storage, as well as other features offered by the platform.

In 2017/2018, the Faculty of Engineering Economics and Management renovated the **Study Room**

making it bright enough to keep students awake and foster healthy learning environment. There are tables and chairs for students to work in groups. There is also a shared computer, projector, a few seating couches and indoor plants – money trees. The idea for such a dedicated space for students emerged in 2016.

In order to encourage more active use of the learning resources and textbooks developed by the FEEM academic staff, **Open Learning Space** was introduced at the ground floor of the FEEM (Kalnciema Street 6) in September of the academic year 2018/2019.

In the academic year 2016/2017, the establishment of the FEEM Student Creative Laboratory at Kalnciema Street 6 was commenced (FEEM Council meeting on 20 June 2017, Minutes No 127). The Student Creative Laboratory, which is located at Kalnciema Street 6 – Room 417, opened its doors in January 2018. The aim of **the FEEM Student Creative Laboratory** is to provide support in the study process and research activities, to promote the development and prototyping of new products and services by students, academic staff and employees of the Faculty, thus contributing to the development of innovation capacity throughout the Faculty and RTU as a whole. Students have access to tools, 3D printer, materials and workstations in the laboratory. These tools and resources can help students turn their idea into a product prototype or to create a prototype or an initial version of a prototype, which can be further developed at RTU Design Factory (DF) in Ķīpsala. The Laboratory is being expanded with a range of tools to meet the students' needs. The Laboratory can accommodate 3–4 working groups of up to 5 people.

RTU Design Factory has been ensuring the implementation of the study course “New Product Design and Development Methodology” for four years, prototyping students' business ideas and facilitating cooperation between the university and entrepreneurs. With the establishment of RTU DF, FEEM academic staff has been involved in the processes of technology transfer and commercialization of ideas at the university level.

**RTU History Museum of Customs and Taxes**, which is located at Kalnciema Street 6 – Room 112, plays an important role in the implementation of the study program “Administration of Customs and Taxes”. It was established in 2008 by RTU Department of Customs and Taxes in cooperation with the State Revenue Service on the occasion of the 90th anniversary of the statehood of Latvia. The Museum is an educational and research institution open to the public, a repository of tangible and intangible cultural values on the history of Latvian Customs and Taxes from the earliest times to the present.

The Museum is administratively under the umbrella of the RTU Department of Public Affairs, while RTU Department of Customs and Taxes oversees and coordinates its activities.

The museum offers an exhibition “Taxes and Customs in Latvia”, which demonstrates:

- the oldest forms of payment and the procedure for their collection;
- the tax and customs system of the Republic of Latvia from 1918 to 1940;
- taxes and customs from 1940 to 1990;
- the taxes, customs and their collection in the restored Republic of Latvia;
- excise goods and smuggling.

The exhibition includes historical documents from different periods, a collection of customs uniforms, and an educational film on taxation and customs in Latvia and the EU.

On 18 May 2019, RTU History Museum of Customs and Taxes in cooperation with the Customs Administration of the State Revenue Service participated in the **2019 Museum Night**. More than 1200 people attended the event. Visitors could learn how smugglers' hideouts are detected with the help of technical means and dogs, find out how counterfeit goods can be distinguished and

which souvenirs not to bring from abroad. The show “With a Song through Customs” by the band “Ziņģes brāļi” from Bauska was also performed at the Museum Night, allowing the audience to immerse themselves in the events of the olden days at the border through songs and stories and to learn about smuggling in the Baltics at that time.

On 18 April 2019, **the Customs Control Laboratory** opened its doors at the Faculty of Engineering Economics and Management, Riga, Kalnciema Street 6. The Customs Control Laboratory was established with the support of the Customs Administration of the State Revenue Service. The opening ceremony was also attended by officials of the SRS National Customs Board, experts and cynologists with a service dog.

The Laboratory provides opportunities for students to acquire and develop practical skills. The Laboratory is equipped with various measuring devices and technical aids used by customs officers in their daily work when inspecting vehicles and persons, such as density and radiation flow measuring devices, metal detectors, endoscopes, drug tests, etc., which allow them to check vehicles for contraband goods. To train students to find contraband goods, special hiding places have also been set up in hollow boards, car doors, seats, fuel tanks and tires. The Laboratory, thus, simulates hiding places frequently used in Latvia for the transport of illicit goods. The Laboratory is also equipped with multimedia equipment to show various customs control training films and videos.

To train Customs and Tax Administration students in self-defense, a training room was designed and constructed in the academic year 2015/2016 in cooperation with the RTU Sports Department and with the financial support from the Department of Customs and Taxes; also electronic training shooting range equipment was purchased and a **firearm training simulator** was created. The simulator is used for training the students majoring in Customs and Taxes in the study course “Self-defense”. Under the guidance of instructors, students acquire and improve shooting skills without the use of live ammunition. The training simulator creates an environment for students without prior experience to learn safety techniques at the shooting range before practicing with live ammunition, while for students that have prior experience it helps improve shooting skills and train muscle memory. The training simulator also helps improve teamwork skills of the students of the International Business and Customs Institute. The team, led by coach Toms Jansons, regularly participates in competitions, including the Open Championships in Close Combat by the Ministry of the Interior.

On 15 December 2016, the distance learning classroom of the Department of Customs and Taxes of RTU FEEM International Business and Customs Institute was set up at RTU FEEM, Kalnciema Street 6. The distance learning classroom was designed to reach the widest possible audience for customs officers training both in Latvia and abroad. For example, the cooperation agreement between the Department of Customs and Taxes of the International Business and Customs Institute and the Tashkent Customs Institute envisages the use of distance learning for the training of both Latvian and Uzbek customs officers. The distance learning system was developed in 2016 during the 9th phase of the EU project “Border Management Program in Central Asia” (BOMCA-9), when RTU experts in Uzbekistan assessed the existing situation and chose the necessary technical solutions during technical missions. As a result, with the financial support of the BOMCA-9 project, a distance learning classroom was designed and special equipment was installed at the Tashkent Customs Institute. Distance learning is also organized in cooperation with al-Farabi Kazakh National University (Kazakhstan).

**Customs Consulting Centre** with two computer rooms has been set up to provide training for customs officers and customs specialists in the business sector. It has been established as an independent RTU unit under the supervision of the Vice-Rector for Academic Affairs. Academic staff

members of the Department of Customs and Taxes oversee, coordinate, as well as participate in its activities.

The Customs Consultative Centre is the only one in the country to train and certify customs brokers and customs declarants. For example, it organizes training for customs officers in vehicle control, etc. Between 2013 and 2022, almost 3,000 customs specialists (788 customs officers and 2127 commercial operators) were trained here. Until 2015, the customs specialists of the SRS upgraded their qualifications at the Customs Consultative Centre. During this period, the SRS acquired new premises with classrooms and other facilities, which allowed the SRS to organize professional development training. Since 2016, the number of economic operators has also decreased, to an average of 54 people per year. This is due to the changes in the legislation on the economic operators in 2015 (incl., the implementation of the new Customs Brokers (Declarants) compulsory certification in the field of customs). Changes in the legislation are currently under development, and it is expected that the number of economic operators to be trained and certified will increase. RTU specializes in providing training in the field of customs by organizing professional development courses for brokers, declarants, freight forwarders, customs clearance specialists, etc.

Along with organization of professional development courses, the academic staff of the Department of Customs and Taxes at the Customs Consulting Centre provide consultative assistance to entrepreneurs, as well as conduct scientific research, by participating in the development of various projects related to topical customs issues. This undoubtedly strengthens the link between the study process and the needs of the economy, improves the quality of teaching, and enables the use of the latest and up-to-date information in the study process. This includes the possibility to use lecture materials developed for professional development courses, which are stored in a specially created database.

**The Scientific Laboratory of Technogenic Environment Safety** was established in 2019 to improve the level of ecological and industrial safety, to conduct research in the field of environmental science, environmental management and engineering, labour and civil protection, and fire safety. The main tasks of the Laboratory are to develop and implement research work programs in the fields of occupational safety, civil protection and fire safety within the framework of the European Union, the Latvian Council of Science and other scientific projects, to provide a technical ground for the research activities of Master and PhD students, to provide independent and objective inspections and technical expertise in accordance with the requirements of the European Union and Latvian legislation in the fields of occupational safety, civil protection and fire safety, to cooperate with certification and testing institutions in regulated and non-regulated areas, to participate in the development of new standards, testing and risk assessment methods in the fields of occupational safety, civil protection and fire safety. The Laboratory is equipped with the necessary functioning equipment, the range of which is continuously improved and extended.

To provide high-quality theoretical and practical assistance to natural and legal entities in technogenic environment safety issues, **the Consultative and Training Centre of Tehnogenic Safety** has been established at the FEEM Institute of Occupational Safety and Civil Defence.

By the order of the public administration institutions, it organizes an independent group of experts that provides scientific and technical assistance in issues related to environmental protection, explosion and fire safety, occupational safety and human security in emergency situations. By the order of public administration institutions, objects are inspected and conclusions are issued on the compliance of ecological and industrial safety with the requirements of regulatory documents. The Centre organizes the training and requalification of specialists in the field of ecological and industrial safety at the level of the professional development education program.

**The Economics Research Centre of Innovation** has been established within the Institute of

Business Engineering and Management of RTU FEEM to provide various types of research in the fields of innovation, technology transfer, entrepreneurship, finance, etc. Scientific and other types of research are carried out by students and academic staff. The Centre provides wide variety of research for industry.

In order to increase the quality of research and the competitiveness of RTU students and researchers in the labour market, **Bloomberg Laboratory** was established in January 2019 at Kalnciema Street 6 – Room 402. The Bloomberg Laboratory provides students and researchers with access to extensive real-time databases, research and analysis tools. The database is very extensive, covering global financial data, corporate data, securities, transactions, marketing activities, real estate and other taxes etc. The Laboratory has 12 specially equipped terminals available to all RTU students and researchers. It has been established as part of the improvement of RTU study environment under the European Union Specific Aid Objective 8.1.1 project “Development of Riga Technical University infrastructure for modernization of STEM study programs”.

The overall aim of the project is to increase the number of modernized STEM (Science, Technology, Engineering and Mathematics) degree programs, including those in the medical and creative industries. Thus, RTU continues to strategically build the most advanced engineering study centre in the Baltic region.

Academic staff and students have access to **the latest versions of various applications** for the needs of the study process, as well as for conducting research: Aquad; Eviews; Visma Horizon; Microsoft Navision; Microsoft Power BI; Microsoft Project; Microsoft Visio; Microsoft Office; Minitab; IBM SPSS Statistics; Sigma Estimate; Plotter; ArcGIS; NVivo; MATLAB and others.

Due to the specific nature of the study field, as well as the lack and high cost of control equipment, the technical equipment from the industry (e.g.State Fire and Rescue Service of Latvia, SRS) is also used in the study process, for example, equipment at the Customs Administration Laboratory (SRS building, Talejas Street 1), at land customs control points (cargo scanners), railway customs control points, etc.

In December 2016, the FEEM opened an Information and Service Centre located on the first floor of the Faculty at 6 Kalnciema Street. It provides students, employees and other visitors with access to and circulation of necessary information in Latvian and English. The staff of the Information and Service Centre – the FEEM students – not only welcome guests and provide necessary information about the study process, building plan, and the most important FEEM news, but also offer copying, printing and binding services.

*(see also the description of each study program in Section 3 of the report)*

**2.3.3. 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 field 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 field, 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 possibilities 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 SL holds more than 1.3 million printed documents and e-resources in RTU industry specific databases. The 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 equipped with self-service facilities. 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 SL website by filling out an order form (<https://www.rtu.lv/en/studies/scientific-library/services-3>) or 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, <http://www.eifl.net/>). 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.

In the period from 2013 to 2022, 167 new book titles have been purchased in the amount of EUR 17702,88 for SL at the request of the study programme "Internal Security and Civil Protection".

In the period from 2013 to 2022, 52 new book titles (172 copies) have been purchased in the amount of EUR 9020,86 for SL at the request of the study programme "Administration of Customs and Taxes".

In the period from 2013 to 2022, 88 new book titles (90 copies) have been purchased in the amount of EUR 7005,43 for SL at the request of the study programmes "Occupational Safety" and "Safety Engineering".

In the period from 2013 to 2022, 27 new book titles (33 copies) have been purchased in the amount of EUR 1676,59 for SL at the request of the study programme "Fire Safety and Civil Protection".

Electronic resources available for the study programmes of the study field "Internal Security and Civil Protection" are listed in Annex 2.3.3.

Every month, the list of the newly-received literature is published in the newly-received literature bulletin ((<https://www.rtu.lv/lv/studijas/biblioteka/jaunieguvumi>) (in Latvian&English)).

**Subscribed databases**  
(<https://www.rtu.lv/en/studies/scientific-library/search-and-find/electronic-resources-1>):

- ProQuest Ebook Central, Academic Search Complete EBSCOhost, Applied Science & Technology Source EBSCOhost, Business Source Ultimate EBSCOhost, EBSCOhost eBook Academic Collection, Wiley Online Library, SpringerLink, The International Monetary Fund.
- The SL also has access to databases funded by the Ministry of Education and Science: ScienceDirect, SCOPUS (Elsevier), Web of Science.
- Latvian databases: LETA, Letonika, Latvijas standartu datubāze (available only on library premises).

The use of SL databases has been growing since 2016. Number of downloaded full texts in 2021 – 792492.

Central Library is open to users from Monday to Saturday (<https://www.rtu.lv/en/studies/scientific-library/opening-hours-and-contacts>). There is a 24h reading room. During the summer the Central Library is open every working day.

The SL information sources are open access resources. Books and periodicals are located in the main building of the SL (5 Paula Valdena Street), in open access resources and the Lending Department of Textbooks (3 Paula Valdena Street). The book location is in compliance with UDC indexes.

The last copy of the oldest editions that comply with RTU profile is stored in the SL 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 (information specialists). The SL has librarians responsible for particular fields of science (<https://www.rtu.lv/en/studies/scientific-library/branch-information>).

Searching for SL resources is ensured by the [PRIMO Discovery](#) search tool). It allows searching for the information in the [library catalogue](#), [subscribed databases](#), as well as in [databases created by the SL](#).

Both the electronic catalogue and RTU portal ORTUS can be used to reserve 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 (<https://www.rtu.lv/en/studies/scientific-library/user-training>).

Editions that are not available in the SL are delivered through an interlibrary subscription or international subscription. Internet access is provided throughout the SL. The SL provides copying, scanning, printing and binding services, as well as there is a self-service canteen.

Contact information for SL users: ask librarian (<https://www.rtu.lv/en/studies/scientific-library/user-training>), use the reference e-mail, call the

reference phone.

**2.3.4. Provide a description and assessment of information and communication technology solutions used in the study process (e.g., MOODLE). If the study programmes within the study field are implemented in distance learning, the tools specially adapted for this form of study must also be indicated.**

Owing to a high level of digitalization, the available infrastructure and material and technical facilities for the implementation of the study field and corresponding study programmes 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 Information Technology Department 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 programmes, Register of Study Courses (its public part is available at <https://stud.rtu.lv/rtu/discpub/list?english=true> – 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 system 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.). For online distance learning RTU academic staff has options to use *Zoom* or *Microsoft Teams* video conferencing platforms.

Since 2007, more than 130,000 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> (in Latvian); <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 programmes is implemented each semester. Based on the results of quality control, regular measures are taken to improve study programmes and the study process, in general.

For the 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 Open Access 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 high-speed fibre optic Internet and extensive wireless network infrastructure with over 400 access points, including the international *Eduroam* 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 Centre provides IT user support, by applying a one-stop approach to process applications based on ITIL guidelines. Since 2007, the IT User Support Centre has processed and resolved more than 160,000 IT user applications.

Students majoring in Customs and Taxes and participants of professional development courses have access to the test environment of customs and SRS information systems.

### **Electronic Customs Data Processing System (EMDAS)**

The EMDAS system provides for:

- 1) Automated export system (interfaces between merchants and customs officers);
- 2) Automated Import System (interfaces between merchants and customs officers);
- 3) Transit Control System (customs interface for processing TIR/transit procedures as well as merchant and customs interfaces supplemented with simplified transit procedures);
- 4) Guarantee administration system for all customs procedures;
- 5) Enhanced system for the registration and identification of economic operators (EORI);
- 6) Single Window system for the electronic exchange of data between merchants and other authorities involved in the border crossing and customs clearance process;
- 7) Single electronic access point, which, through the EMDAS project, enables merchants to electronically lodge customs declarations and accompanying documents with the customs authorities of any EU Member State (including from their business premises). It is an interface between the systems of economic operators and the customs information systems of the EU Member States. The data submitted will be automatically transmitted to the responsible customs office where the goods will be delivered, irrespective of the Member State where that customs office is located.

### **Electronic Declaration System (EDS)**

The Electronic Declaration System (EDS) is a secure and convenient way for natural and legal entities to submit all tax and informative declarations, as well as applications to the SRS. In addition to the submission of documents, the EDS also offers online services such as an electronic payroll tax book, statements for public procurement and various types of reports with data held by the SRS, such as information on tax payment status. EDS is a free service that ensures data security and accuracy, as well as saves time.

### **Integrated Tariff Management System (ITMS)**

The ITMS provides information on product codes, tariff and non-tariff measures (import and export

restrictions, prohibitions, import duties, excise duties and VAT), as well as the codes needed to complete customs declarations (procedures, additional procedures, supporting documents, currencies, product codes, additional codes, etc.).

### **2.3.5. 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/lv/universitate/vakances-rtu/personalatlasas-dokumenti> (in Latvian); the English translation is in the file of Annex 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 Department together with the job description and qualification requirements, including the workload (full-time or part-time).

Regarding academic positions for professors and associate professors, where the term of election expires in the respective academic year, periodic evaluation of scientific and pedagogical qualifications is performed in accordance with the Procedure for Election of a Candidate for the Position of Professor or Associate Professor and the Procedure for Assessing the Qualification of an Existing Professor or Associate Professor approved by the RTU Senate meeting on 29 June 2020 (published at [https://www.rtu.lv/writable/public\\_files/RTU\\_par\\_profesoru\\_un\\_asocieto\\_profesoru\\_periodisko\\_novertesanu\\_apstiprinasanu.pdf](https://www.rtu.lv/writable/public_files/RTU_par_profesoru_un_asocieto_profesoru_periodisko_novertesanu_apstiprinasanu.pdf) (in Latvian); the English translation is in the file of Annex 45 of the List of Internal regulations).

The Personnel Department informs the head of the structural unit of the professor or associate professor about the need to organize the evaluation of the professor or associate professor. The evaluation is performed by the Board of professors of the field in accordance with the Law on Higher Education Institutions, the Regulations of Councils of RTU professors and the Regulations on periodic evaluation of professors and associate professors approved by the RTU Senate. After the evaluation, the Council of the professors of the field submits an opinion on the result of the evaluation to the Rector and the Personnel Department. Taking into account the evaluation of the Board and the procedures and criteria set by the higher education institution, the employment



contract with the associate professor or professor may be extended for a definite or indefinite term. If, as a result of the evaluation, the scientific and pedagogical qualification of a professor or associate professor meets the evaluation criteria set by the higher education institution, the employment relationship is continued. If, as a result of the evaluation, the qualification of a professor or associate professor does not meet the evaluation criteria set by the higher education institution:

- the relevant employment contract of the professor or associate professor is terminated;
- the department may decide to announce a new vacancy.

The Personnel Department 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 Department 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, Unified Work Remuneration Procedure at RTU (see the file of Annex 44 of the List of Internal regulations), 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> (in Latvian));
- Labour Law (<https://likumi.lv/ta/id/26019-darba-likums> (in Latvian));
- Immigration Law (<https://likumi.lv/ta/id/68522-imigracijas-likums> (in Latvian));
- Cabinet Regulations 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> (in Latvian));
- Cabinet Regulations 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> (in Latvian));
- Cabinet Regulations 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> (in Latvian));
- 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 27 April 2020 (amendments on 28 September 2020, 21 December 2020, 25 January 2021, 31 January 2022) (see the file of Annex 44 of the List of Internal regulations).

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 RTU centralized activities, the FEEM developed **a video instruction for new academic staff members** in 2018. It addresses the most important issues to be aware of when starting a career at RTU. It includes several sections with documents and links to materials, such as the Law on Higher Education Institutions, RTU Study Regulations, RTU Regulation on the Assessment of Learning Outcomes, RTU Internal Regulations and others, as well as demonstrates the most important sections of RTU e-learning environment ORTUS, introduces to the study process and academic work planning.

**2.3.6. 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 qualifications (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 Centre 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 Centre 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, which are identified through a survey, in which the lecturers indicate the most important topics and areas in which they want to improve themselves. Student surveys data and information from student self-governments are also evaluated, to gain some topics which should be improved for lecturers from students' point of view. At the same time, proactive actions are being taken to assess the potential needs of academic staff.

The Centre 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 Centre 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.

Lecturers have the opportunity to improve their English language skills by applying to the courses offered by the RTU Institute of Applied Linguistics or by the RTU Riga Business School, which are organized thanks to SOO 8.2.2 project funding.

With the emergency situation and lecturing switching to the remote mode, the CAE on the ORTUS portal prepared a site "Support in the provision of remote courses". The site consists of six sections: General Information, Technical Assistance, Pedagogical Assistance, Experience Stories, Distance Exams and Mutual Support. Each section is regularly updated with relevant resources. Lecturers appreciate such a resource, and also suggest what other materials should be included.

Since March 2020, almost 80 webinars have taken place (both organized by CAE and international partners, in which RTU lecturers were invited to participate). Webinars organized by the CAE were recorded, with more than 400 participants participating online, and the recordings were viewed more than 650 times.

RTU IT User Support Centre 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 May each year, the Student Parliament of RTU organizes the contest "Annual Award of the

Student Parliament of Riga Technical University". During the event, RTU staff and members chosen by the students are awarded the honorary titles "Instructor of the Year" and "Student Support 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.

Starting from academic year 2017/2018, RTU FEEM Council approves **the FEEM Staff Development Plan** for each semester. In total, many different events have been planned and implemented, including academic conferences, international conferences, as well as professional development seminars for FEEM academic and administrative staff. Taking into account the theme of the organized event and the intended target audience, on average almost 80% of the academic and administrative staff participated in the events. **Examples** of professional development events for **staff** organized during the reporting period:

Starting from academic year 2017/2018, RTU FEEM Council approves **the FEEM Didactics and Professional Development Plan** for each semester. In total, many different events have been planned and implemented, including academic conferences, international conferences, as well as professional development seminars for FEEM academic and administrative staff. Taking into account the theme of the organized event and the intended target audience, on average almost 80% of the academic and administrative staff participated in the events. **Examples** of professional development events for the FEEM academic staff organized during the reporting period:

- The FEEM Science Think Tank took place on 10 November 2022. The FEEM Science Think Tank - experience stories on participation in projects, networking and joint publications aimed at the development of academic staff and improvement of the academic process.
- On 18 May 2022, the FEEM academic **conference "Assessment Process in Higher Education Institutions - Searching for a Common Approach in an Ever-Changing Environment"** was held. The aim of the conference was to share experience on the mutual integration of teaching methodological work and study assessment in the study process with the aim of developing the knowledge and skills of academic staff in the assessment of learning outcomes in ever-changing conditions.

Main tasks: to provide an interactive discussion on problems, methods and approaches to the assessment of learning outcomes for the development of students' competences; to discuss ways and perspectives of digitization of education and its impact on the assessment process; to ensure cooperation among academic staff members and dissemination of good practices for teaching and assessment to contribute to the development of students' competences. More information at: <https://www.rtu.lv/lv/ievf/zinatne-ievf/konferences-3/ievf-akademiska-konference-1/ievf-akademiska-konference-2022> (In Latvian only)

- On 13 May 2021, RTU Faculty of Engineering Economics and Management held an academic conference **"Think Differently"**. The aim of the conference was to share experience on the integration of methodological and scientific work in the study process with the aim to develop the skills and improve the competences of academic staff in various fields. The main tasks were: to provide an interactive discussion on contemporary educational problems, methods and approaches to the development of students' competences; to discuss the ways and perspectives of digitalization of education and its impact on the development of competences. More information at: <https://www.rtu.lv/lv/ievf/zinatne-ievf/konferences-3/ievf-akademiska-konference-1/ievf-akade>

[miska-konference-2021](#)(in Latvian only)

- In 2020, a two-month staff development course “Competence-based Studies in Higher Education: Challenges and Solutions” (4 CP, 160 academic hours, including 60 contact hours) was held.
- On 12 April 2019, the FEEM academic conference on **“Soft Skill-based Education in Schools and its Impact on Higher Education”** took place. The aim of the conference was to share experience on the integration of methodological and scientific work in the study process with the aim of better development of students’ competences. Within the conference, teacher of Sigulda Primary School No 1, senior expert of the Project “Skola2030” in the field of technology education delivered the report “Content and Approach of Technology Education”, teacher of economics at Agenskalns State Gymnasium delivered the presentation “Education for Modern Literacy: Accents of Curriculum and Approach. Expected Learning Outcomes in Economics/Basics of Business” and the principal of Ogre Secondary School No 1 delivered the presentation “New Curriculum and Study Process in General Secondary Education”. The conference was attended by 73 participants, most of whom were academic staff of this study field. The conference proceedings are available in the digital funds of the National Library of Latvia: <http://dom.lndb.lv/data/obj/752154.html> (in Latvian only)
- On 1 March 2019, the FEEM seminar **“Corporate Culture - How to Reduce Internal Friction and Increase External Opportunities?”** took place. During the seminar, the FEEM Dean discussed corporate values, beliefs, norms and tradition systems. With the aim of introducing modern methods for delivering study courses on new product development and entrepreneurship at RTU, the FEEM Dean and Professor Elīna Gaile-Sarkane organized a pedagogical development course for RTU academic staff.
- On 27 April 2018, the FEEM academic conference **“Integrating Teaching Methodology and Research in the Study Process”** was held. The plenary speakers of the conference: Professor Tatjana Volkova from the BA School of Business and Finance with the topic “Integration of Methodological and Scientific Work in the Study Process”; RTU Vice-Rector for Academic Affairs Professor Uldis Sukovskis – “Impact of Digitization on Quality Assurance in Higher Education”; Professor Tatjana Koķe from Riga Stradiņš University – “Contemporary Trends in Study Methodology and Lifelong Learning”. In total, 33 publications were submitted by the FEEM academic staff, 18 of which were submitted by academic staff of this study field and were compiled in an electronic publication collection: ISBN: 978-9934-22-070-8.
- On 23 February 2018, the FEEM Dean held a seminar on **“Plagiarism, Copyright Infringement and Preventive Measures”**, where she provided information on the legal aspect of plagiarism, its types and self-plagiarism. Representatives of RTU Press addressed publication ethics, including information on cases of violations of publication ethics and international practice in dealing with them, and conflict of interest and its declaration. The representative of RTU Study Department discussed plagiarism in study papers, ways of detecting plagiarism and computer-assisted plagiarism detection tools, as well as recommended actions in cases of plagiarism detection.

Examples of professional development seminars for **administrative staff** organized during the reporting period:

- Workshop “Organizing Examinations, Credit Tests and Other Tests Online – Tools and Experiences”;
- Workshop “Microsoft Office 365 Basics”. The workshop covered such issues as editing and saving documents in web browsers (Word Online, Excel Online, PowerPoint Online or OneNote Online), as well as the possibilities of sharing documents across workgroups for easy and fast

document handling and data collection;

- Workshop on Microsoft Word, Microsoft Excel and Microsoft PowerPoint. The emphasis of the workshop was to encourage record keepers to make greater use of the possibilities offered by the software, thus minimizing the time spent on drawing up various documents and reports;
- Seminar for office administrators and managers together with the Deputy Head of the Study Department and the Head of Academic Administration Unit on topical issues in the organization of records, including procedures and deadlines; electronic application for state scholarships;
- Seminar for office administrators and managers on preparation of data for annual reports and statements. The seminar was held in the form of discussion (questions – answers) on the Regulation on Final Examinations at Riga Technical University.

Every January, the Annual Student Parliament Award is held. It is an annual event organized by RTU Student Parliament, where the Student Self-governments of RTU faculties, study and science centres and independent institutes, the Board of RTU Student Parliament, the most active students, administration and academic staff are awarded for the best projects, campaigns and collaborations during the year.

In addition to RTU activities, every year the FEEM Student Self-government organizes a festive event **“FEEM Pride”**, which is a student-initiated and independently organized project with the aim to express gratitude for the work of the academic staff in everyday life, promotion of student education and the growth of the faculty. On 2 September 2022, the event took place for the 19th time. In order to find out the winners of the “FEEM Pride 2022” awards, representatives of the FEEM Student Self-government created questionnaires in which students had the opportunity to nominate faculty members for certain nominations, as well as newly developed the methodology for processing the questionnaire data. Prizes were awarded in nominations submitted by undergraduate and postgraduate students. The nominees were identified through a survey of both undergraduate and postgraduate students at the end of academic year 2021/2022. A total of 31 academic and general staff members received diplomas, prizes and flowers at the award ceremony. Several of the nominated academic staff members (6) are employees within the study field. More information at: <https://www.rtu.lv/lv/ievf/ievf-par-mums/ievf-zinas/atvert/priekpilni-izskanejis-ievf-lepnums-2022> (in Latvian only)

The FEEM academic staff members are highly evaluated not only within RTU. During the reporting period, several nationally significant awards and recognitions have been granted to the FEEM academic staff. In 2016, the Ministry of Education and Science of Latvia awarded Professor Inga Lapiņa, Professor Elīna Gaile-Sarkane, Professor Aivars Vilnis Krastiņš, Professor Jānis Ieviņš **certificates of recognition** for their significant contribution to the implementation of higher education in Latvia and the creation of a unified academic environment in the field of business, economics, quality and process management in Latvia and worldwide. In 2018, Professor Aivars Vilnis Krastiņš was awarded the First Class Medal of Honor by the State Revenue Service (SRS) for his personal contribution to the development of SRS, establishing and strengthening the customs and tax education system in Latvia.

The list of awards granted to RTU **International Business and Customs Institute (IBCI)**:

In 2014, the Cabinet of Ministers of the Republic of Latvia awarded the **IBCI** the Certificate of Recognition for its long-standing and significant contribution to the training of specialists in international economic relations, as well as customs and tax specialists, to the development of the national economy and the promotion of the country’s economic security, to the development of

higher education and science in Latvia.

On 29 November 2016, RTU **IBCI** was awarded the Certificate of Recognition by the State Border Guard for productive cooperation and significant contribution to the implementation of the BOMCA-9 project.

In 2018, RTU **IBCI** was awarded the Certificate of Recognition for long-standing cooperation in contributing to the goals of the State Revenue Service.

In 2019, the World Customs Organization expressed its gratitude to **RTU for updating the international standards for the customs profession.**

In 2022, RTU **IBCI** received the Letter of Appreciation from the Customs Institute of the State Customs Committee of the Republic of Uzbekistan for its comprehensive support and practical contribution to the development of customs study programmes in Uzbekistan and their recognition at the international level. The IBCI experts within the framework of the European Commission's international border security project BOMCA-9 helped the Uzbek Customs Institute to revise and adapt the curricula to the World Customs Organization's (WCO) international standards for the customs profession. The Bachelor programme implemented by the Uzbek Customs Institute received the WCO Certificate of Recognition on 22 November 2021.

A number of academic staff members also received awards. For example, **Professor Aivars Vilnis Krastiņš, Head of the International Business and Customs Institute**, was awarded the following prizes:

- Officer of the Cross of Recognition of the Republic of Latvia for special merits in the activities of the Latvian Customs Service, for merits in the establishment and development of the customs education system (2008);
- Certificate of Recognition of the Cabinet of Ministers of the Republic of Latvia (2014);
- Certificate of Appreciation of the Prime Minister of the Republic of Latvia (2013);
- WCO Honorary Certificates (2005, 2010, 2012);
- Certificate of Recognition of U.S. Department of Homeland Security;
- Honorary Medals of the State Revenue Service (2000, 2005, 2013);
- Latvian State Border Guard Award for merits in the development of the State Border Guard (2016);
- Award of the State Revenue Service of the Republic of Latvia on the occasion of the 30th anniversary of the restoration of Latvian customs (2021);
- Anniversary Medal of the Latvian State Border Guard (1999);
- Certificates of Recognition of the Ministry of Finance of the Republic of Latvia;
- Certificates of Recognition the Council of Higher Education of the Republic of Latvia;
- RTU Certificates of Recognition;
- Certificates of Recognition of RTU Faculty of Engineering Economics and Management, etc.
- Honorary Doctor of the Russian Presidential Academy of National Economy and Public Administration (2013);
- Honorary Doctor of the University of Customs and Finance of Ukraine (2022).

A list of academic staff members who received various awards:

Assistant Professors Ruta Račinska and Aivars Gulbis were awarded WCO Honorary Certificates.

On 19 January 2022, **Māris Jurušs**, Associate Professor of IBCI, received the Certificate of Appreciation of the Constitutional Court of the Republic of Latvia for his opinion as an invited person in the case on the Law on Personal Income Tax, which contributed to a comprehensive examination of the case.

On 15 September 2020, **Head of RTU IBCI, Professor Aivars Vilnis Krastiņš**, Associate Professor and Project Manager of BOMCA-9 Component 1 **Normunds Rudzītis** and Public Relations Manager **Elīna Ludāne** received awards from the State Border Guard for significant contribution to the implementation of the ninth phase of the European Union Border Management Programme in Central Asia (BOMCA-9).

In January 2019, IBCI Deputy Head, **Associate Professor Daira Aramina** received the Certificate of Appreciation from the Minister of Education and Science Ilga Šuplinska for contribution to the implementation of higher education and the development of RTU.

On 22 November 2019, **Head of RTU IBCI Aivars Vilnis Krastiņš, and Associate Professor Normunds Rudzītis** were awarded the anniversary medal “100 Years of Latvian Customs” for their significant contribution to the development of the customs service.

In 2018, the State Revenue Service also expressed its gratitude to **Māris Jurušs**, Associate Professor at RTU IBCI Department of Customs and Taxes, for participation in the development of the excise tax gap methodology and conducting research on the illegal movement of excise goods, involving students, thus contributing to the achievement of the objectives of the State Revenue Service.

Within the framework of the study process and research activity, the academic staff of **the Institute of Occupational Safety and Civil Defence**, in long-term cooperation with various state and non-state institutions and educational institutions both in Latvia and abroad, have received a number of certificates of recognition, awards and prizes, the most significant of which during the reporting period are listed below.

#### **The Institute of Occupational Safety and Civil Defence:**

- On 4 May 2021, the Letter of Appreciation of the Latvian Firefighters' Union was received for long-standing and successful cooperation in the practical and scientific field of training specialists in fire safety and civil defence for the needs of the Republic of Latvia.
- On 9 May 2022, the Letter of Appreciation of the Association of Competent Institutions for Labour Protection was received for significant contribution to the training of labour protection specialists, as well as to the development of higher education in the field of labour protection in Latvia.
- On 16 May 2022, the Letter of Appreciation of the Latvian Forest Industry Federation was received for long-standing and significant contribution to the training of occupational health and safety specialists, to the development of the national economy and internal security, and to the promotion of higher education and science in Latvia.

#### **Prof. Vladimirs Jemeljanovs:**

- On 25 April 2013, the International Academy of Ecological and Life Protection Science, Russian Federation awarded Prof. Vladimirs Jemeljanovs the Star of the Scientist and the title of Honorary Worker of Science.
- Several RTU honorary certificates.

#### **Assoc. prof. Māris Ziemelis:**

- On 27 August 2013, he was awarded the Medal “For Contribution to the Common Cause” by the Academy of State Fire Service of the Ministry of Emergency Situations of Russia.
- On 23 March 2016, he was awarded the Medal for Merit by the Fire Safety and Civil Protection College of State Fire and Rescue Service of the Ministry of the Interior of Latvia.
- On 20 June 2019, he was awarded the Bronze Medal of Honor “Lāčplēsis” of the Latvian State Defence Fund.

- Several RTU honorary certificates.

#### **Assist. prof. M. Urbans:**

- On 24 April 2012, he received the Certificate of Appreciation from the Chief of Riga Municipal Police for successful and good work.
- On 3 September 2015, he received the Certificate of Honor from the Chief of Riga Municipal Police for professional work and initiative in ensuring public order.
- On 24 April 2019, he received the Certificate of Honor from the Chief of the State Fire and Rescue Service, General O. Āboliņš for support to the State Fire and Rescue Service and on the occasion of the 154th anniversary of the State Fire and Rescue Service.
- On 26 September 2021, he received the Certificate of Honor and Commemorative Medal of Riga Municipal Police “30 years of Riga Municipal Police”.

#### **2.3.7. Provide information on the number of the teaching staff members involved in the implementation of the relevant study programmes of the study field, as well as the analysis and assessment of the academic, administrative (if applicable) and research workload.**

The implementation process of the study field “Internal Security and Civil Protection” and the study programme involve both RTU academic staff and highly qualified specialists from the State Revenue Service (SRS), as well as experts in labour protection, fire safety and civil protection fields with relevant education and work experience. It should be noted that a total of 36 academic staff members, or 65%, have PhD degrees, while 20, or 35%, have Master degrees. More detailed information on the academic staff is available in the Appendix: List of Academic Staff Members and their CVs.

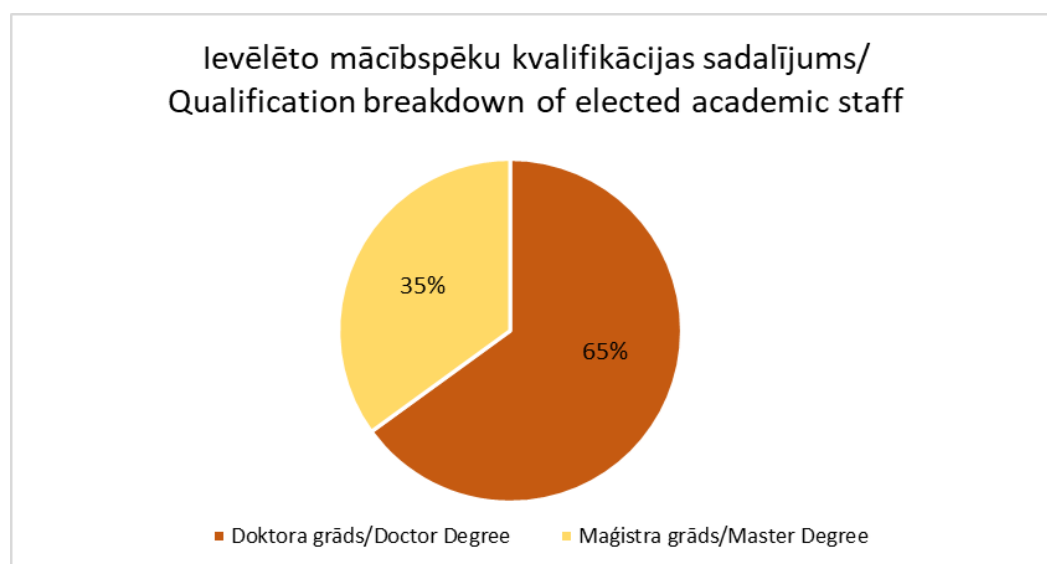


Figure. Qualification breakdown of elected academic staff (%).

Analyzing the distribution of the qualifications of the elected academic staff into groups, it can be concluded that currently 65% of the total number of academic staff are elected to academic positions with a doctorate degree in the direction of studies, that is, 9 representatives in the position of professor, 11 representatives in the position of associate professor, 9 representatives in the position of assistant professor, 2 in the position of researcher and 5 as a lead researcher. On



the other hand, analyzing the distribution of the qualifications of the elected teaching staff with a master's degree, they are 35%, with 3 representatives in the position of researcher, 6 representatives in the position of lecturer, 8 representatives in the position of practical assistant professor and 3 in the position of scientific assistant.

Analyzing the data on RTU elected academic staff, it can be concluded that PhD degrees are obtained in the relevant scientific field. Most of them are in engineering and social sciences, as well as in natural sciences, management and economics, but at the same time, depending on the course taught, there are academic staff members holding PhD degrees in social sciences, pedagogy, etc.

In the distribution of elected academic staff, there are 20 representatives in the position of professors or associate professors, or 33% of all academic staff. Currently, as stated above, 9 professors and 11 associate professors are working in the direction of studies, whose main task is the development and improvement of study programs, work with doctoral students and master's students, thus also a greater load in scientific projects and scientific research work. The academic staff, whose main priority is focused on scientific research work, has a relatively high academic load, they are 5 leading researchers and 2 researchers (13%). In the direction of studies as a basic job in the status of academic staff for 6 lecturers, they are 11% of all academic staff. It should be noted that there is also a high academic load in the position of assistant professor and practical assistant professor, where 17 persons have been elected, of which 9 with a doctorate degree (16%) are in the position of assistant professor and in professional study programs (in accordance with Article 39 of the Law on Higher Education (AL)) 8 were elected to the position of practical assistant professor with a master's degree (14%).

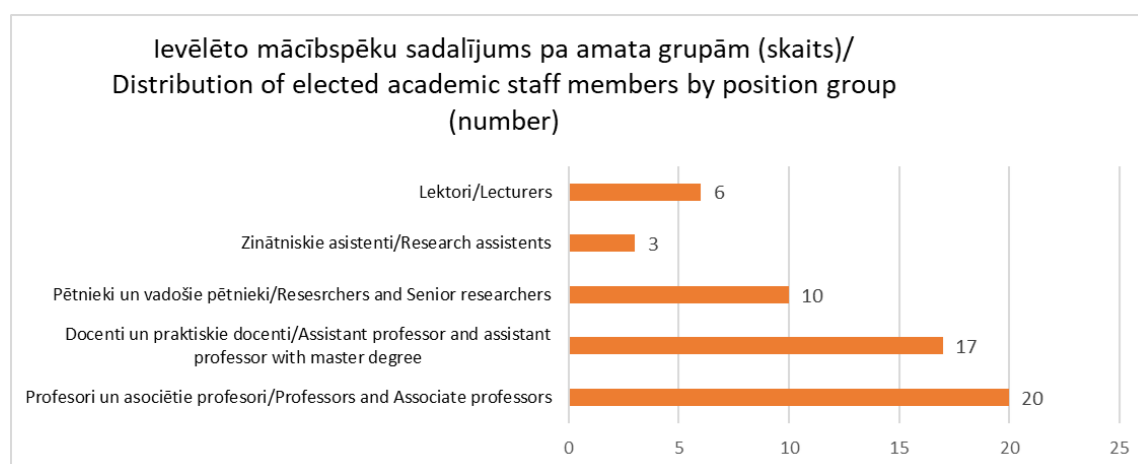


Figure. Distribution of elected academic staff members by position group (number).

It should be noted that some of the elected academic staff also have practical experience in their field. For example, Dr.oec. A. V. Krastiņš is a former Director of the National Customs Board of the SRS, Assistant Professor A. Gulbis is a former Deputy Director of the National Customs Board for Combating Smuggling, PhD, Assistant Professor A. Čevers is a former Head of the National Customs Board Customs Control Department, Assistant Professor N. Rudzītis is a former Head of the Internal Audit Department, PhD, Assistant Professor M. Urbans is a former Senior Inspector of the Riga Municipal Police Water Safety and Civil Protection Department. Assoc.prof. J. Pundure is the former Deputy Director of the Internal Audit Division of the Ministry of Interior. Prof. J. Ieviņš was Chair of the Board of Darba aizsardzība Ltd and Technical Expert on Occupational Safety and Health at the Latvian Investment and Development Agency (LIAA). Assistant professor implementing professional study programmes Jānis Bērziņš is a former Director of the State Labour Inspectorate. Assoc.prof. M. Ziemeļis has had many years of experience in various managerial positions at the Ministry of Interior of the Republic of Latvia, with the previous position being Deputy Chief at the State Fire and Rescue Service. He has also been working as a Civil Protection Engineer at JSC Latvenergo. Prof. V.



Jemeljanovs is the former Director of the Fire Safety and Civil Protection College of the State Fire and Rescue Service. Mg. DA. M. Šmitiņš is the Head of the Safety Department of Paula Stradiņš Clinical University Hospital, etc.

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

Academic work includes contact hours in classrooms and laboratories, consultations, supervising and reviewing study and graduation papers, work at examination committees, methodological work and activities that improve the quality of studies, etc.

Administrative (organizational) work includes managing study programmes, work at boards, commissions, council, senate, managing organizational units, etc.

Research (scientific) work: attracting and managing projects, carrying out research tasks paid for by development funds or third-party funding (including contracts, contract work with legal entities (Latvia, abroad, etc.), developing publications, supervising and reviewing PhD Theses, working with PhD candidates, mentoring.

In most cases, it is not possible to strictly separate and define academic and research workloads, as there are overlaps in day-to-day staff responsibilities and all elected academic staff have both academic and research workloads, and in some cases administrative work. At RTU, there is no specific separation of academic and research workload, which is determined proportionally for each member of the academic staff on an individual basis, by planning the staff member's workload at the department, as well as taking into account their position, involvement in project implementation, professional competences and experience.

Each year, to ensure high study quality, study courses are reviewed and improved by developing new pedagogical strategies and introducing new teaching and learning methods within the course. This means that new academic staff members are attracted on a temporary basis to provide quality teaching and quality assurance to students (see Figure).

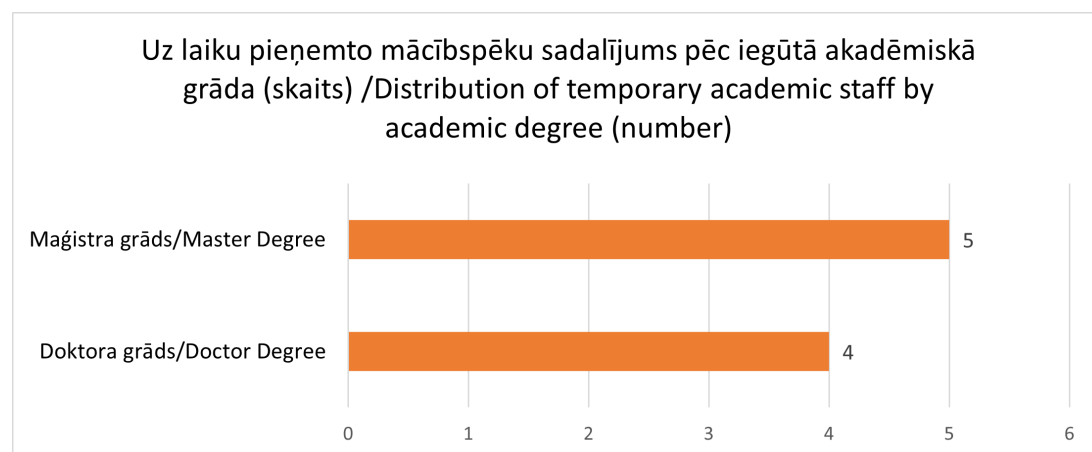


Figure. Distribution of temporary academic staff by academic degree (number).

Academic staff from other organizational units, faculties and higher education institutions are involved in the implementation of the study process. It is important to note that in order to promote students' practical knowledge-based sectoral competence, high-level professionals and experts are also engaged as guest lecturers in study programmes, thus providing quality implementation of study courses from the perspective of practical experience. Attracting such guest lecturers contributes to the full-fledged teaching of study courses. At present, 9 temporary academic staff

members have been recruited – 4 of them with PhD degrees and 5 with Master degrees.

**2.3.8. 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 Department 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;
- attendance an annual Career Day;
- career choice seminars within RTU Open Days and upon request.

For current 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;
- student summer camps for the development of career management and social skills and competences;
- online resource <https://ekarjera.rtu.lv/> (in Latvian);
- 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 practical placement 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  
(<https://www.rtu.lv/en/studentsservice/career-centre/psychological-support>):

- 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.

As a result of pandemic, the offer has become even more accessible, as counselling and also career classes can be offered remotely.

In 2014, the Student Services Centre was opened in Ķīpsala campus. It provides day-to-day support under the supervision of the Career Support and Services Department:

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

Further information is available at: <https://www.rtu.lv/en/studentservice/student-service>

In 2019, work was started on strengthening support for students with disabilities and in 2020 guidelines were issued with recommendations for effective communication and improvement of the study environment for people with disabilities and special needs: <https://www.rtu.lv/lv/studentuserviss/par-mums-ssd/noderigi-ssc/noderigi-materiali-1/ka-komunicet-un-nodrosinat-piemerotu-studiju-vidi-personam-ar-invaliditati-un-specialam-vajadzibam> (in Latvian).

For students, various types of support and counselling are also provided by the RTU Student Parliament, whose structure includes all faculty Student Councils and the International Students Council (ISC), which also represents the rights and interests of foreign students. Every RTU student in all level study programmes have the right to get involved in Student Parliament, as well as faculty Student Council's and ISC, both extramural and intramural, as well as full-time and part-time students. Student Parliament and faculty Student Council's organise study evenings where students can help each other learn different topics together; promote involvement in science and student clubs in order to develop different practical knowledge in the study field; organize various academic-type events, such as panel discussions and guest lectures, excursions with collaborators from different sectors, providing students with the opportunity to explore different future potential jobs and to further develop understanding between acquired knowledge in lectures and in the specific work environment.

Further information available at: <https://www.rtu.lv/en/rtusp>

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 programmes 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 10-15 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 and verify the compliance of the submitted documents with the requirements specified in regulatory enactments.

RTU ICFSD foreign student admission team organizes introductory or orientation virtual seminars for foreign students, which take place before the beginning of the academic year / semester and students' arrival in Latvia, to inform students about practical issues related to entry and stay in Latvia (entry requirements, vaccination, self-isolation, accommodation, etc.)

ICFSD in cooperation with the Student Service provides its students with a career counselor, who explains employment-related issues to students and introduces them to available vacancies, thus facilitating students to gain work experience and develop their skills and abilities.

In 2015, the RTU **FEEM Service and Information Centre** was established. It helps improve student services at the faculty, as well as creates the overall image of the faculty and RTU. The Centre provides the following services: photocopying, document printing; key distribution (for classrooms and shared rooms), first aid kit storage, student and guest counselling, information provision and display (on notice boards in the Faculty premises, on the Faculty website and other information media).

To promote and ensure the accessibility of higher education and provide access to all students and visitors with reduced mobility, the **building** of the Faculty of Engineering Economics and Management at Kalnciema Street 6 has **been adapted for persons with reduced mobility**:

- access to the building via the basement, which has a wheelchair-accessible route;
- the building has lift access;
- specially equipped facilities for people with reduced mobility;
- the location of the classroom number signs next to the doors at a height (1300 – 1800 mm);
- the width of the doors in the classrooms is appropriate;
- easy access to the canteen.

The FEEM Student Self-government organizes various student support, motivation and involvement

events every year. In academic year 2021/2022, almost 20 different thematic events were organized, such as:

- EKV Fest 21 – an annual camp for first-year students to introduce them to current events at the FEEM. It is customary for the Dean of the Faculty, academic staff, Student Self-government and representatives of RTU Student Parliament to share their experience and advice. Participants took part in team relays, learning how to interact with future coursemates.
- FEEM Pride – an annual event where the FEEM academic staff and administration are awarded in various nominations. To find out the nominees, surveys are carried out among students. The Dean opens the award ceremony with her speech, in which she looks back at the past year, the work done, achievements and events experienced.
- First FEEM – an informative meeting to find out the latest developments in the study process from the faculty administration, to get answers to topical questions.
- Freshers' initiation – an annual event to initiate first-year students into the new phase in an informal atmosphere. The initiation gives freshers the opportunity to get out of their comfort zone, competing in a variety of interesting challenges and getting to know each other in non-standard situations.
- EKV Fest 21 afterparty – the main goal of the event was to motivate the freshmen campers to continue to represent the Student Self-government, promote cohesion and not to lose contact with potential members.
- Erudition competition "Prātplēsi – pieslēdzies!" – an event organized in cooperation with the Latvian Academy of Culture in honor of Lāčplēsis Day. Participants answer various questions related to Latvia, its history and other current events.
- Pre-exam seminar – This event gives FEEM students the opportunity to learn about the exam process and related academic issues: the academic arrears system, rotation, etc.
- (IE)SPĒJA: Media literacy – the event gave students the opportunity to learn about the different aspects of media literacy, its application in everyday life and the power of information in security issues – private and national. The week-long event provided an opportunity to learn from experts on issues such as - what is the difference between disinformation, cyber security and fake news? How can media literacy be used in business?
- Erasmus+ story evening – students were introduced to the opportunities offered by Erasmus+ and the details of international agreements between different universities and RTU. Various experience stories and useful information were shared to make it easier for potential applicants to realize their aspirations.
- FEEM Ambassadors – to attract prospective students, the Student Self-government initiated a project in which current students went to Latvian educational institutions to tell about the educational and extra-curricular opportunities offered by RTU and FEEM. During two months, the representatives of the FEEM Student Self-government visited 10 secondary schools across Latvia. The pupils learned about the opportunities at RTU, as well as about the student experience at the FEEM and RTU in general. This is a new project, which is planned to be developed further.
- Garden Festival – an event organized by the Student Self-government to celebrate the 55th Anniversary of the FEEM together with the Faculty administration. Jasmine trees were planted in the courtyard, and musical performance was enjoyed by the staff and attendees.

It is important to note that the above-mentioned events are organized by the FEEM Student Self-Government. Students also take part in the events organized by RTU Student Parliament.

## 2.4. Scientific Research and Artistic Creation

### 2.4.1. Description and assessment of the fields of scientific research and/or artistic creation in the study field, their compliance with the aims of the higher education institution/ college and the study field, and the development level of scientific research and artistic creation (provide a separate description of the role of the doctoral study programmes, if applicable).

The research field is in line with the specifics of the study field, as well as RTU Strategy, which defines three goals of the university - quality study process, excellent research and sustainable innovations. The aim of the study field "Internal Security and Civil Protection" is to provide students with a competitive, scientific research-based, multi-level education in the field of internal security and civil protection that meets the requirements of the Latvian and European labour markets. The aim of the study field is essentially derived from RTU Strategy and, therefore, the research conducted within the study field is aimed at its implementation. When conducting research, the academic staff strives for excellence and valorization of the achieved results, as well as the results are integrated into the study process.

The main research area of the study field "Internal Security and Civil Protection" is organizational and national security. It is fully in line with RTU **research platform "Security and Defence"** (for more details see: <https://www.rtu.lv/en/research/research-platforms/security-and-defence>). Detailed information on the activities carried out in the study field within the research platform "Security and Defence" is provided in Section 2.4.4.

The research area covers the following sub-themes:

- - improvement and efficiency of customs and tax administration and organization;
- - improvement of import, export and transit control on dual-use items;
- - issues related to tax planning and tax control improvement;
- - analysis and development of fire and civil protection systems;
- - identification of technogenic environment risks.

The research sub-topics "Analysis and Development of Fire and Civil Protection Systems" and "Identification of Technogenic Environment Risks" of the Institute of Occupational Safety and Civil Defence focus on topical contemporary issues related to fire safety mitigation in the public, business and private sectors, civil protection system analysis at national and company levels, as well as research on various types of technogenic environment risk identification issues.

In 2019, in the research field "Analysis and Development of Fire and Civil Protection Systems", the Joint Environmental Risk Management Plan for Jelgava and Šiauliai Cities (identification No JPD2018/18/MI, implemented by Jelgava City Council within the Interreg V-A Latvia - Lithuania Cross-border Cooperation Program 2014-2020, project No LLI-232 "Improvement of Environmental Risk Management Resources in the Border Region to Effectively Perform Environmental Protection Measures") was developed. The academic staff members of RTU FEEM Institute of Occupational Safety and Civil Defence participated in the project, i.e., prof. Jānis Ieviņš, prof. Vladimirs Jemeljnovs, assoc.prof. Jelena Pundure and PhD student Mihails Urbans, who was engaged as a civil and technogenic safety specialist. During the execution of the contract work, an analysis of six high-hazard sites was carried out to identify potential risk management gaps and to assess the impact on the environment and the population. The knowledge and practice acquired during studies enabled PhD student Urbans to carry out the contract work, thus gaining not only invaluable

experience, but also the material base to be able to successfully develop the Doctoral Thesis and incorporate the research results into his future study programme and process.

In academic year 2021/2022, the Institute of Occupational Safety and Civil Defence offered four study courses "Fire Protection Systems", "Environmental Protection", "Dangerous Industrial Equipment and its Monitoring" and "Industrial Waste Management" to employees aged 25 years and older in the 7th round of the European Union (EU) fund for the adult education project "Improvement of Professional Competence of Employed Persons" implemented by the State Education Development Agency. These courses have been designed to incorporate the latest scientific and research developments in the respective fields. In turn, the implementation of such study courses within the framework of the above-mentioned project allows for the transfer of scientific and research knowledge to the sectors of the national economy, and the acquisition of significant added value for those working in the sector, their competitiveness on the labour market and the integration of scientific and research knowledge into the sectors of the national economy.

The knowledge of the academic staff of the Institute of Occupational Safety and Civil Defence as experts of the Latvian Council of Science (LCS) is regularly used and transferred to sectors of the economy in the form of contract work, such as:

- In 2015, Professor V.Jemeljanovs and Professor J.leviņš executed RTU - SRS contract No.L8129-3.7.5.4/1 "On Provision of Consultancy Services in the Evaluation of the Effectiveness of the State Fire Safety Monitoring Function;
- In 2015, Professor V.Jemeljanovs participated as an RTU expert in the work of the Parliamentary Investigatory Committee of the Saeima of the Republic of Latvia on the actions of the Latvian state in assessing the causes of the tragedy that occurred in Zolitude on 21 November 2013, and in addressing the further actions taken to regulate the legislation and activities of state administration and local governments to prevent the recurrence of tragedies, as well as on the actions to prevent the consequences of the tragedy;
- In 2016, Professor V.Jemeljanovs and Associate Professor J.Malahova executed RTU - JSC Inspekta Latvia Contract No 1-3.31/016/2015 "Assessment of the Technological Process of the Pellet Plant in Inčukalns, Plānupes iela 34, with the Aim to Determine the Sources of Heat of Ignition (Mechanical Energy)";
- In 2015, prof. J. leviņš executed JSC Ventspils Grain Terminal - RTU contract No. 03000-3.1.2/15/239 for the provision of technical expertise. He carried out identification of specific risks for certain job groups at JSC Ventspils Grain Terminal;
- In October 2016, Professor J. leviņš and Professor V. Jemeljanovs performed contract work with Ltd MAXIMA Latvija on the scientifically sound opinion on occupational health and safety and civil protection, contract No 03000-3.1.2/16/177;
- In September 2017, RTU FEEM Institute of Occupational Safety and Civil Defence performed contract work with JSC Dobeles dzirnavnieks on analysis, modeling and simulation of possible scenarios of an occupational accident at the Combined Feed Factory, contract No.L8472;
- In 2019, Professor V.Jemeljanovs executed contract No.01-08-04/2019 with Ltd. N2 Global Manufacturing for the research of a new fire-fighting technology.

Scientific research in the study field is generally in line with the aims of RTU and the study field itself. The academic staff is sufficiently active, but for further development of the study field scientific research should be improved by increasing international cooperation.

In 2018-2019, Māris Jurušs participated as an expert in the World Health Organisation's "Pilot Research Project on Illicit Trade in Tobacco Products", which included a study on the illicit cigarette market. The research addressed issues related to improving cooperation between customs and tax administrations and increasing the effectiveness of controls. The research led to several

publications, including on alternative tobacco products and their control.

In the research area of tax planning and tax control improvement, a study "The Prevalence of Undeclared Employment in Latvia and Opportunities to Combat it" was carried out in 2020 together with Master students. Scientific advisers: Assoc. prof., Dr.oec. Māris Jurušs and Assist. Prof., Dr.oec. Justīna Hudenko. The study included a survey and addressed options to reduce unregistered employment and improve tax control. The study also resulted in a publication indexed in the Scopus database. In addition, the results of the study were discussed with the State Revenue Service.

Associate Professor Dr.iur. A.Lieljuksis in 2015-2016 participated in the World Bank project "Assessment of Money Laundering Risks in Latvia", gaining valuable experience in issues of national economic security. The gained experience has been consolidated in several publications, which are used in the study process of organizational security topics.

RTU provides assistance to a number of universities in other countries in the development of customs officer study programmes and improvement of the training process in accordance with the requirements of the WCO and the EC (Russia, Ukraine, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan, Azerbaijan, etc.). RTU is one of the leading organizations in the EC-funded border security project BOMCA (Border Management in Central Asia). BOMCA-9 has a budget of EUR 6.176 million, BOMCA-10 – a budget of EUR 21.65 million. RTU specialists have also participated in customs education and border security improvement projects in Transcaucasia, Nepal, several African countries, etc.

#### **2.4.2. 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.**

Scientific research is of paramount importance at university and must provide the basis for academic work. The curriculum must be relevant to the latest scientific trends. This approach is pursued in the study field "Internal Security and Civil Protection". The research component of the work with students is ensured by participation in projects, contract work and conferences, as well as the development of publications. The most important publications of the academic staff of the study field are summarized in the appendix "List of Publications, Patents, Artistic Creations of the Academic Staff in the Reporting Period". By preparing scientific articles for publication, academic staff of the Institute of Occupational Safety and Civil Defence supplement the study courses with practical examples and calculations, the latest scientific knowledge, and theories, thus contributing to students' understanding of fire safety, civil protection and occupational safety issues, trends, methods of mitigating various risks, and enabling them to fully interpret and analyze the results obtained. The link between scientific research and the study process can be illustrated by some examples.

While elaborating PhD Thesis with the support of the European Social Fund project "Development of the Academic Personnel of Riga Technical University in the Strategic Fields of Specialization" 8.2.2.0/18/A/017, as well as participating in the Jelgava City contract work "Development of a Common Environmental Risk Management Plan for Jelgava and Šiauliai Cities" (ID No JPD 2018/18/MI), implemented by Jelgava City Council under Interreg V-A Latvia-Lithuania Cross-border Cooperation Program for 2014 – 2020, project No LLI-232 "Improvement of Environmental Risk Management Resources in the Border Region for Effective Environmental Protection Measures", PhD



candidate of the Institute of Occupational Safety and Civil Defence M. Urbans developed and integrated practical examples and calculations in the study courses ICA405 “Management and Simulation of Emergency Situations”, ICA406 “Object Risk Assessment”, as well as revised the visual material available in the ORTUS system.

By publishing a scientific article “Use of the Fault Tree when Drawing up the Riga City Civil Protection Plan for Risk Assessment” in *Scientific Conference on Economics and Entrepreneurship SCEE '2020: Organized within the 61st International Scientific Conference of Riga Technical University: Book of Abstracts*, Latvia, Riga, 14-16 October 2020. Riga: RTU Press, 2020, pp.39-39. ISBN 978-9934-22-510-9. ISSN 2256-0866, together with co-authors M. Urbans and V. Jemeljanova, J. Pundure supplemented the study courses ICA105, ICA301 “Civil Defence” with up-to-date examples.

Lecturer Guna Bazone and prof. Jānis Ieviņš published an article “Labour Protection Problems in New Forms of Employment in Latvia” (*11th International Scientific Conference Business and Management, 2020*, pp.417-425; ISSN 2029-4441). The problems of new forms of employment, including teleworking, discussed in the article became a necessity in the following years, and thus could be added to study courses such as “Occupational Safety”.

Since 2020, lecturer Guna Bazone, asoc.prof. Jeļena Pundure, prof. Jānis Ieviņš have been participating in the ERASMUS+ project “Needs-Based Education And Studies In Societal Security (NEEDS)”. Contract No 2020-1-SE01-KA203-078013 was signed with the Council of the Baltic Sea States on 1 September 2020. Project duration is 36 months. The project also involves students of the Institute of Occupational Safety and Civil Defence: PhD student Mārtiņš Baltmanis, safety engineering students Aleks Stepaņuks and Roberts Toms Kalējs. RTU Institute of Occupational Safety and Civil Defence will use its experience from this project to improve its course syllabi, e.g. “Occupational Safety”, “Civil Defence”.

The theoretical knowledge and practical experience of the academic staff of the Institute of Occupational Safety and Civil Defence have been assessed through a number of contract assignments for both the public and private sectors. In 2019, Professor V. Jemeljanovs executed contract No 01-08-04/2019 with Ltd N2 Global Manufacturing on research of new fire extinguishing technology, as a result of research the new extinguishing system of autonomous type with the new extinguishing agent – aerosol – was invented.

Various contractual works were undertaken in cooperation with Latvian companies. For example, the results of the contract work “Assessment of the Technological Process of the Pellet Plant in Inčukalns, Plānupes Street 34, with the Aim to Identify the Sources of Heat of Ignition (Mechanical Energy)” were integrated into the study courses ICA404 “Fire Security Supervision and Control” and ICA703 “Organisation of Fire Security Preventive Works and Fire Investigation”. The results of the contract work “On the Provision of Consultancy Services for the Evaluation of the Effectiveness of the National Fire Safety Monitoring Function” were integrated into the study courses ICA404 “Fire Security Supervision and Control”, ICA703 “Organisation of Fire Security Preventive Works and Fire Investigation”, and ICA709 “Fire Protection Systems”.

In 2013, Māris Jurušs together with Normunds Rudzītis and experts of RTU Faculty of Materials Science and Applied Chemistry carried out research “Application of Loss Rates for Petroleum Products due to Natural Wastage in Customs Procedures”, commissioned by the Ministry of Finance of the Republic of Latvia and supported by the ESF (identification No FM 2013/1-ESF/SFTP). The research included the analysis of the norms of losses of petroleum products and alcoholic beverages, study of the international regulations, identification of losses in practice. The study resulted in proposals for changes to the regulatory enactments, which were also taken into account by the Ministry of Finance that drafted appropriate amendments to the regulatory enactments. The

experience gained from the research is applied in the study process, both in courses on losses and customs and tax risks, and in the development of study papers, teaching students how to carry out practical research.

In 2015, Māris Jurušs participated as an expert in the research “Assessment of the Effectiveness of the Latvian Environmental Tax System in line with OECD and EU Requirements”, commissioned by the Ministry of Environmental Protection and Regional Development and supported by the EC Environment Programme. In 2016, he was an expert in the World Bank project on the assessment of the Latvian tax system in the section “Assessment of Tax System Developments in Latvia: Excise Taxation and Environmental Taxation” and drew up a report on excise and environmental taxation. The results of both studies are used in the study process discussing such issues as the role of taxation in sustainable development.

In 2018–2019, Māris Jurušs participated as an expert in the project of the World Health Organization “Pilot Research Project on Illicit Trade in Tobacco Products”, which included the study of the illicit cigarette market in Latvia. In 2019–2021, Māris Jurušs carried out several studies on excise duties on tobacco products and alternative products (e-cigarettes) with the involvement of students. The results of the research are used in the study process.

Māris Jurušs was invited as an expert in the research cooperation project “Analysis of the Latvian Labour Tax System and Opportunities for Improving its Competitiveness” of the Latvian Council of Science. The results of the research are used in the study process, including the supervision of students’ graduation papers and study projects.

In 2021–2022, Māris Jurušs with the support of the EU (ERDF) “Support to the RTU International Cooperation Projects in Research and Innovations” (No 1.1.1.5./18/I/008) carried out scientific research, the results of which were presented at international scientific conferences, as well as used in the study process:

- Possible Improvement of Methodology for Estimation of the Illicit Tobacco Market (2021);
- Method for Evaluation of Consumption Tax Regressivity (2022);
- Sustainable Taxation Strategy for Economic Recovery (2022).

It should be noted that the results of scientific research are also used for publicity and general education of the public and students. For example, in 2019–2020, in cooperation with iFinances.lv, a tax sandbox project was implemented, where the scientific results of study projects in different fields were explained in detail – 19 popular science articles in total. The study project resulted in several articles which were discussed with the employees of the State Revenue Service and participants of scientific conferences:

- Tax Challenges in the Collaborative Economy (<https://ortus.rtu.lv/science/lv/publications/29120>);
- The Challenges of Introducing the Blockchain Technology in Logistic Chains (<https://ortus.rtu.lv/science/lv/publications/28897>);
- The Tax Nexus in the Digital Economy (<https://ortus.rtu.lv/science/en/publications/34871>) ;
- The Prevalence and Motivation of the Undeclared Employment in Latvia (<https://ortus.rtu.lv/science/lv/publications/32008>).

Experience of Associate Professor, Dr.iur. A. Lieljuksis in European Social Fund project No 9.2.6.0/17/I/001 “Qualification Improvement of Medical and Treatment Support Staff” (2019) is very useful in improving the study process in security topics. For example, A. Lieljuksis specializes in corruption risks, including providing knowledge from examples on corruption risks in healthcare. The experience in these projects is used in the implementation of the study course “Legal Aspects of National Economic Security”.

The documents “Customs and Tax Administration. Methodological Guidelines for the Development of Qualification, Bachelor and Master Theses” (2016) developed by the groups of authors – Aivars Vilnis Krastiņš, Daira Aramina, Aldis Čevers, Aivars Gulbis, Māris Jurušs, Anita Zeilas – made a significant contribution to the improvement of the study process. On the other hand, the group of authors – Inga Lapiņa, Daira Aramina, Leonards Budniks, Tatjana Celmiņa, Kristīne Fedotova, Krista Griķe, Liene Ivanova, Līga Kamola, Konstantins Kozlovskis, Nadežda Semjonova, Inese Vilcāne – developed “Methodical Guidelines for Formatting Study and Graduation Papers” (2016).

**2.4.3. 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.**

To ensure continuous development, the academic staff of the study field use various forms of international scientific activity. These include participation in international projects, publication of their results on project websites, organization and participation in international scientific conferences and seminars, publication of articles in scientific journals indexed in recognized databases (WoS, Scopus).

International cooperation is highly valued and is implemented in line with the priorities and plans of the study field in the areas of national economic security, customs and tax administration efficiency improvement, civil protection and other relevant areas. International projects involve joint research and publications with partners from other universities. Cooperation agreements on study and research activities have been signed with several universities: the University of Customs and Finance in Ukraine, the D.A. Tsenov Academy of Economics, a Memorandum of Understanding with the Cross-Border Research Association (CBRA) in Switzerland, Narxoz University in Almaty (Republic of Kazakhstan), Al-Farabi Kazakh National University. RTU Institute of Occupational Safety and Civil Defence, Faculty of Engineering Economics and Management, in cooperation with Tallinn Institute of Occupational Safety and Environmental Health and joint stock company Latvijas Finieris signed a cooperation agreement on the practical placement provision, scientific research cooperation and measurements of electromagnetic field exposure levels at workplaces.

One of the most important international projects is the BOMCA-9 project (Border Management Programme in Central Asia), where the knowledge and research results are used in the implementation of the study programme “Customs and Tax Administration” in courses on national economic security, strategic planning, secure supply chains and others. In 2015, RTU became a partner in the European Commission-funded international border management project BOMCA-9 in five Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. During the reporting period, experts participated in numerous project activities – conferences, seminars, steering group meetings, chaired one of the project components, organized training for staff and trainers of customs and border management authorities and educational institutions of the Central Asian countries, expert consultations, study tours and technical missions. Within the project, the partners visited RTU and gave guest lectures to students. For example, in academic year 2017/2018, the International Business and Customs Institute (IBCI) was visited by representatives from the Customs Service Training Centre of Tajikistan and the Customs Service Training Centre of Turkmenistan. Guest lectures were organized during the visit. Within the framework of BOMCA, under the guidance of the IBCI specialists, Al-Farabi University of Kazakhstan

revised its customs education programmes in line with the requirements of the World Customs Organization (WCO) and received WCO accreditation/recognition in March 2019. During the project implementation period of 2015-2020, 88 different national, regional and international events were organized in the Institute-led component, with more than 1400 participants; 40 different normative documents were developed, including recommendations, strategic planning documents. N. Rudzītis, the IBCI Head, Professor Aivars Vilnis Krastiņš and Public Relations Manager Elīna Ludāne received awards from the State Border Guard for their significant contribution to the BOMCA-9 project. In the next reporting period, it is planned to continue international cooperation in the field of security and defence, including in the framework of the BOMCA project, as well as possibly with the Ukrainian Customs Academy and other cooperation partners. In this context, N. Rudzītis has already been involved in the implementation of BOMCA-10.

In line with one of the priorities for research on the control of strategic goods, cooperation in this area has also continued during the reporting period. Prof. Aivars Vilnis Krastiņš has already participated in scientific activities on this topic in the past, and a book has been published in this field. The book is used in the implementation of the programme "Customs and Tax Administration" (in the study courses on the control of restricted goods). During the reporting period, Prof. Aivars Vilnis Krastiņš and Public Relations Manager Elīna Ludāne met with Kevin Burgwinkle from the US Embassy in Latvia and Rossitza Petrov from the US Department of State to discuss the possibilities of further cooperation on dual-use goods control issues.

During the reporting period (30 September 2016) an international scientific conference (dedicated to the 50th anniversary of RTU FEEM) was organized. The conference was held in the subsection "National Economy and Entrepreneurship" of section "Internal Security and Civil Protection" and featured several foreign collaborators (from the University of Westphalia Wilhelm Münster, a customs advisor from Sweden, the Higher Military Customs Institute of Uzbekistan). Students from the programme "Administration of Customs and Taxes" also participated in the conference.

On 8-9 February 2017, the Head of the Department of Customs and Taxes Prof. A.V.Krastiņš and the Assistant Professor Normunds Rudzītis visited the Lithuanian Customs Department. During the visit, representatives of RTU Department of Customs and Taxes met with the Head of Lithuanian Customs Arunas Adomenas, representatives of the Lithuanian Customs Training Centre, etc. The following issues were discussed:

- -RTU-Lithuanian Customs cooperation (study visits, research, information exchange, cooperation within the BOMCA-9 project, taking into account the extension of the project until 2019);
- - conclusion of a cooperation agreement;
- -cooperation on control of strategic and dual-use goods.

Dr.oec. Māris Jurušs participated in several research projects during the reporting period: expert, Latvia Competitiveness Report 2016: Tax Study, CERTUS think tank (2016); leading expert, Evaluation of the ban on the placement of tobacco products, RTU, LTA, (2016); leading expert, Evaluation of the excise tax on alcoholic beverages, RTU, LANA, (2016); leading expert. Evaluation of excise and environmental taxes, CERTUS, (2016); Expert, Evaluation of the effectiveness of the Latvian environmental tax system in compliance with OECD and EU requirements, MoEPRD, (2015); Expert, Providing consultations on the application and administration of value added tax and excise duty, State Audit Office audit "On the Annual Report of the Republic of Latvia on the Implementation of the State Budget and on Local Government Budgets in 2014 - Revenue Part", Riga, State Audit Office, (2015); Leading Expert, Study on the Impact of Taxes on Income Inequality, Riga, RTU, (2015); Leading Expert, Study on the Optimal Policy of Excise Tax on Tobacco Products, Riga, RTU, (2015). Publications issued within the framework of the research have been used as

textbooks in the study courses on tax analysis, planning and application within the study programme "Administration of Customs and Taxes".

During the reporting period, the project "The Needs-Based Education and Studies in Societal Security - NEEDS" has been implemented. Agreement no. 2020-1-SE01-KA203-078013. Project partners: The Council of the Baltic Sea States Secretariat (CBSS) (Sweden), Hamburg Fire and Rescue Services (HFRS) (Germany), LAUREA University of Applied Sciences (Finland), Main School of Fire Service (MSFS) (Poland), Liepaja Municipal Police / UBC Safe Cities Commission (Latvia), Swedish Defence University (SEDU) (Sweden), University of Tromsø, the Arctic University of Norway (UiT) (Norway). Information about the project is available at: <https://cbss.org/>. The results of the project were used to improve the study process in the field of occupational safety.

The involvement of academic staff in research and international cooperation has a positive impact on the study process and improves its quality. The results obtained in scientific research are used to improve the content and teaching methodology of study courses. The knowledge, competences and experience of the academic staff acquired in international projects are used in specific study courses of the study field programmes, for example, it is planned that the fully digitized course "Public Safety" will be offered as an elective study course for students of the study programme "Safety Engineering".

Experts are also involved in international cooperation with the World Customs Organization (WCO). Of particular note is the cooperation in the development and improvement of the Customs Professions Standard. A.V. Krastiņš is a member of the PICARD Advisory Group. At the 2018 PICARD Advisory Group meeting, the international standards for the customs profession were reviewed. The meeting was attended by representatives of several universities and the World Customs Organization. The new PICARD Professional Standards include public-private cooperation, closer linkages between customs and revenue collection functions, topical issues of coordinated border management and others. The WCO PICARD Customs Profession Standards are used worldwide for both university curriculum development and training in border security related institutions. The standards also include guidelines for the accreditation of university programmes by the WCO.

Associate Professor, Dr.iur. A.Lieljuksis in 2018-2019 participated in the European Social Fund project No.3.4.2.0/15/I 002 "Professional Development of Human Resources in Public Administration for Preventing Corruption and Reducing Shadow Economy" and organized a training course on Legal Aspects of Conducting Operational Experiments, implementing joint cooperation of several countries. In the framework of the European Social Fund project No 3.4.2.0/15/I 002 "Professional Development of Human Resources in Public Administration for Preventing Corruption and Reducing Shadow Economy", he delivered lectures on the topic "Aspects of Money Laundering Prevention" for law enforcement officials in several cities of Latvia from August 2018 to January 2019.

On 21-22 November 2019, the ProTax meeting took place, where Māris Jurušs gave his feedback on the project's work so far. ProTax is aimed at combating tax fraud. Its main objectives are to identify challenges in combating tax fraud, analyze the situation in the EU, and develop solutions for further effective cooperation among authorities, thus enabling a more successful fight against tax fraud. ProTax members include academic institutions, public authorities and other social partners.

On 9-10 December 2019, at the World Health Organization Workshop on the WHO Framework Convention on Tobacco Control in Riga ("Multisectoral workshop for WHO Framework Convention on Tobacco Control Parties in the European Union to Promote the Protocol to Eliminate Illicit Trade in Tobacco Products"), Associate Professor Māris Jurušs presented a report on his research "Possible Improvement of Methodology for Estimation of the Illicit Tobacco Market".

Academic staff of the Institute of Occupational Safety and Civil Defence prof. J. Ieviņš, prof.

V.Jemeljanovs, assoc.prof. J. Pundure and PhD student M. Urbans in 2019 executed a large-scale contract work of Jelgava City "Development of the Joint Environmental Risk Management Plan for Jelgava and Šiauliai Cities" identification No.JPD2018/18/MI, which was implemented by Jelgava City Council within the Interreg V-A Latvia-Lithuania Cross-border Cooperation Programme 2014-2020, project No.LLI-232 "Improvement of Environmental Risk Management Resources in the Border Region to Effectively Perform Environmental Protection Measures". The main results of the work were presented to the responsible representatives of Jelgava municipality and in Lithuania at the 19th International Multidisciplinary Scientific Conference "Rethinking Regional Competitiveness". It is important to note that the main results of the research were integrated into the practical examples and calculations of study courses ICA 405 "Management and Simulation of Emergency Situations", ICA 406 "Object Risk Assessment", as well as transformed into the visual material available in the ORTUS system.

On 4-6 March 2020, Elīna Ludāne, Public Relations Manager of the Department of Customs and Taxes, participated in the 11th Meeting of the Capacity Building Committee of the World Customs Organization - Manage Change Today for a Sustainable Tomorrow. The annual meeting, which brings together representatives of Customs Administrations of the WCO member states and universities, discussed a number of issues important to the International Business and Customs Institute, such as the PICARD (Partnerships in Customs Academic Research and Development) 2030 Strategy, the WCO collaboration on customs performance measurement in which the International Business and Customs Institute is involved and other topical issues.

On 7 February 2020, the International Business and Customs Institute expressed its interest in participating in the newly established Customs Performance Measurement Working Group of the World Customs Organization by offering the institute's expertise and providing its publications to the WCO.

On 16 September 2020, a seminar was held to present the results of a study on excise duty and national regulatory policy on alternative smokeless nicotine products. The results of the study were discussed with representatives of the Ministry of Finance, the SRS and industry.

On 29 June 2020, RTU FEEM International Business and Customs Institute organized and hosted a webinar for Uzbek border management services on the impact of the COVID-19 pandemic on strategic border management. During the webinar, senior officials from the Ministry of Health of the Republic of Latvia, the State Border Guard Service, the State Customs Service and the Food and Veterinary Service presented measures to contain the spread of COVID-19 in Latvia and the EU Member States, as well as shared experience in implementing innovative solutions. Uzbekistan was represented at the webinar by officials from the Border Troops of the State Security Service, the State Customs Committee, the State Veterinary Service and the State Plant Quarantine Inspectorate and the Customs Institute of the State Customs Committee. The event was organized in the framework of the European Union Border Management Project BOMCA-9 (Border Management Programme in Central Asia) and the German Corporation for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) programmes.

In 2021, Justīna Hudenko participated in an EU-funded project (No 10.1.3.0/19/TP/003 "Technical Assistance to the Ministry of Transport for the Implementation of Investment Preconditions for the European Union Funds for the Programming Period 2021-2027") commissioned by the Ministry of Transport, within which researchers from the International Business and Customs Institute of Riga Technical University developed a unified methodology that would help make data-driven decisions on priority investments in the transport sector. This project included, among others, questions on models of public intervention in customs and taxation matters. The lessons learnt from the project are being used in courses on tax and customs control in commodity supply chains.

On 9-10 December 2021, the Head of the Department of Customs and Taxes, Professor Aivars Vilnis Krastiņš and the Public Relations Manager of the Department Elīna Ludāne participated in the annual PICARD (Partnerships in Customs Academic Research and Development) conference, which brought together representatives of customs and universities from WCO member states. The conference participants also discussed opportunities for cooperation in research and the organization of the study process.

On 1-2 December 2021, the Head of the Department of Customs and Taxes, Professor Aivars Vilnis Krastiņš and the Public Relations Manager of the Department Elīna Ludāne participated in the Estonian Academy of Security Sciences' conference "30 Years of Safe Freedom", which was dedicated to the topic of security. The plan is to continue cooperation with the Estonian Academy of Security Sciences by participating in joint international projects.

On 17 March 2021, a meeting took place between the Head of the International Business and Customs Institute, Prof. A.V.Krastiņš and the Rector of Azerbaijan Customs Academy Dr. Gulu Novruzov. Participants: assistant professor N.Rudžītis, assistant professor A.Čevers, public relations manager E.Ludāne, representative of RTU International Cooperation and Foreign Students Department Natalja Muračova. The following issues were discussed during the meeting: the development of a joint curriculum, the possibility for students of the Azerbaijan Customs Academy to participate in RTU online lectures, faculty exchange, guest lectures, remote practical placement opportunities, cooperation within the Erasmus+, Jean Monnet programmes.

The academic staff of the study field also implement study courses in study fields of other RTU faculties. Thus, a synergy is formed, which is beneficial not only for the study field, but also for the entire university.

By analyzing the involvement of the academic staff in scientific research, further activities were determined to increase its effectiveness:

- to increase the number of scientific publications in scientific journals indexed in Scopus and Web of Science databases;
- to promote the publication of scientific articles in co-authorship with foreign academic staff;
- to increase the activity of the academic staff in the implementation of international projects;
- to actively participate in international scientific conferences;
- to diversify the forms of cooperation with international partners and to attract foreign guest lecturers to the study field.

Research on combating illicit markets is a priority for scientific cooperation. In this regard, it should be noted that since 2022, Māris Jurušs has been nominated as Latvia's national expert for the international COST project CA21133 - Globalization, Illicit Trade, Sustainability and Security (GLITSS). The COST Project is an interdisciplinary research network bringing together researchers from academia. GLITSS constitutes an interdisciplinary research network characterized by the inclusiveness and diversity that define the research field today. The objectives of the action are to establish a holistic research agenda on trafficking practices, to raise public awareness to improve societal resilience, and to explore how technological innovations contribute to trafficking but can also be used to combat it. Government agencies, civil society organizations and academia will benefit from a Europe-wide discussion on trafficking. Ultimately, GLITSS will advise stakeholders on how to build a more resilient and sustainable society by identifying, understanding and combating illicit trafficking. The GLITSS project is expected to run over several years until 2025. Several working groups, workshops, scientific mobility visits, conferences are planned. This will allow for closer links with the institutions and researchers involved in the project through joint activities and knowledge sharing. The knowledge and results of the project will be used in the implementation of the programme "Administration of Customs and Taxes", integrating the research results into the

study materials and involving the students in discussions and study projects.

**2.4.4. 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 field by providing examples.**

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. 649 "On approval of the RTU Regulations "On the Procedure for Election of a Candidate for the Position of Professor or Associate Professor and the Procedure for Assessing the Qualification of an Existing Professor or Associate Professor" in a new edition" as of 26 April 2021). 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 on 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 Defence. 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 Programme (Decision of RTU Senate No. 590 "On Authorization to Approve RTU Research Programme by RTU Scientific Council" as of 27 May 2015; "Research Programme of 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 2016–2020, 16 projects were supported and nearly 300,000 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 2013–2019. The total number of the publications increased from approximately 440 publications per year in 2013 to 879 in 2021. Number of SCOPUS publications per researcher (expressed in full-time-equivalent (FTE)) increased from circa 0.9 in 2013 to circa 1.7 publications/FTE per year in 2021 (the data were obtained from Elsevier “SciVal” database on 16 November 2021).

All academic staff are actively involved in scientific and applied research in line with the Development Plan. Each year, several research projects are implemented, as well as the academic staff participate in international scientific conferences and develop publications.

Dr.oec. Māris Jurušs participated in the conference "Taxation, Investment and Innovation: a Triptych for Balanced Growth" from 17 to 18 November 2016 in Brussels, Belgium.

Normunds Rudzītis co-authored the report “Improving the Border Agency Cooperation among the OIC Member States for Facilitating Trade” (2016) within the study "Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC)".

From 14 to 15 November 2017, representatives of the International Business and Customs Institute participated in the Security Research, Innovation and Education Event 2017 in Tallinn, Estonia, organized by the European Commission, the Estonian Academy of Security Sciences. Participants: assistant professor of professional study programme Normunds Rudzītis, project manager Elīna Tīrzīte, public relations manager Elīna Ludāne.

From 17 to 21 September 2018, the Director of the Finance College of the Estonian Academy of Security Sciences, and a Lecturer in Customs Affairs, visited RTU International Business and Customs Institute (IBCI) as part of the CEPOL exchange programme. The Estonian representatives met with the Dean of FEEM Elīna Gaile-Sarkane, Deputy Dean Inga Lapiņa, Head of the International Business and Customs Institute Aivars Vilnis Krastiņš, as well as the academic staff of the programme "Administration of Customs and Taxes". The Estonian representatives also visited the Ministry of Finance, the State Revenue Service, the Freeport of Riga, etc. The CEPOL (European Union Agency for Law Enforcement Training) exchange programme is designed to train law enforcement officials from the European Union Member States and related training institutions.

From 15 to 19 October 2018, RTU IBCI Assistant Professor Māris Jurušs and Assistant Professor Aldis Čevērs participated in CEPOL exchange programme and visited the Estonian Academy of Security Sciences.

On 16 October 2018, Māris Jurušs gave two lectures on taxation in Latvia and tax planning, as well as an interview with the Estonian National Television. During the visit, the academic staff got acquainted with the customs and tax training programme in Estonia and visited the Estonian Tax and Customs Board.

From 20 to 21 March 2018, IBCI Assistant Professor Aivars Gulbis and Assistant Professor Normunds Rudzītis participated in the 2nd Session of the World Customs Organization “Moscow International Model”, which took place at the Russian Customs Academy. During the visit, the IBCI

representatives gave guest lectures on corruption risks and their prevention, met with students and faculty members, and participated in an exchange of experience on the organization of applied games. The training was organized by the Russian Customs Academy in cooperation with PICARD (Partnership in Customs Academic Research and Development) and INCU (International Network of Customs Universities).

From 26 to 28 February 2018, Prof. A.V.Krastiņš participated in the 9th Annual Meeting of the Capacity Building Committee of the World Customs Organization. The theme of the meeting was "Smart Customs: The Gateway to High Performance and Sustainability". The meeting was attended by customs chiefs and experts, representatives of international organizations, agencies and universities. A.V.Krastiņš also participated in the PICARD Advisory Group meeting. The agenda comprised changes in the WCO International Occupational Standards.

In May 2019, senior researcher of the International Business and Customs Institute Dr.oec. Māra Pētersone participated in the Erasmus+ programme at the Lithuanian University of Health Sciences. M. Pētersone participated in the Erasmus+ programme "Intercultural Competences: Importance and Impact" held at the Lithuanian University of Health Sciences in Kaunas on 6-10 May 2019. In Kaunas, M.Pētersone also participated in the International Forum on Global Health: Yesterday, Today, Tomorrow, which was organized by the Lithuanian University of Health Sciences.

In 2019-2021, senior researcher of the International Business and Customs Institute Dr.oec. Māra Pētersone participated in the research project "Performance Management Improvement Opportunities in the National Clinical University Hospitals". The research was carried out within the 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/2/18/330).

As part of the European Commission's Customs 2020 programme, the European Commission has set up an EU Customs Certificate Recognition Board (for the recognition of Bachelor and Master programmes). Assistant Professor of the International Business and Customs Institute Aldis Čevērs has become one of the Board experts. The first meeting of the Board took place in March 2019.

In May 2019, Normunds Rudzītis, Assistant Professor at the International Business and Customs Institute, participated in a research project organized by the European Commission on the future of customs in the European Union. The future of customs in the European Union is being studied in a project set up by the European Commission Directorate General for Taxation and Customs Union (DG TAXUD) and the European Commission Joint Research Centre. The project aims to gather/develop a knowledge base on the future of customs and scenarios that can be used by policy makers and implementers to take long-term decisions in the customs area. A total of 5 expert meetings and workshops were held in 2019-2020. They brought together around 40 international experts from the Member States, the European Commission, universities, business and trade. Normunds Rudzītis, Assistant Professor at the International Business and Customs Institute, has been delegated from Latvia to the project. The first seminar took place in Brussels on 13-14 May 2019.

Associate Professor, Dr.oec. Māris Jurušs annually conducts research on excise duty on tobacco products, and examines problems of excise duty administration, combating smuggling and other issues related to the field of study. The results of the research are published (<https://sesmi.rtu.lv/category/zinatne-mnk/>), discussed in seminars with members of the competent authorities and used in the study process.

Aivars Gulbis, Assistant Professor at the Department of Customs and Taxes, RTU International

Business and Customs Institute, delivered a report "Digitization of Freight Transport Documents" at the conference "Opportunities for Development of Customs Administrations in Conditions of Deepening Eurasian Integration" organized by the Russian Customs Academy, which took place on 22-23 November 2020.

On 22 October 2020, Normunds Rudzītis, Assistant Professor at the Department of Customs and Taxes, RTU International Business and Customs Institute, participated in the conference "Border Security and Management" organized by Rezekne Academy of Technologies and the State Border Guard College. In the panel discussion on the role of modern technologies and digitalization in law enforcement and education - necessity and challenges, N.Rudzītis gave a presentation on "Challenges of Digitalization in Educational Process".

On 30 September 2020, Professor Aivars Vilnis Krastiņš, Head of the FEEM International Business and Customs Institute participated in the discussion "International Standards for Customs Administration Staff Training: Theory or Reality". It was organized by the Russian Presidential Academy of National Economy and Public Administration. Participants included customs experts, representatives of universities and the Asia-Pacific Regional Office of the World Customs Organization. The discussion focused on the role of standards in the customs profession in the new economic situation, where the COVID-19 pandemic increased the volume of customs work. As a result, the importance of distance learning and remote working is growing in all sectors.

In May 2022, Associate Professor Dr.oec. Māris Jurušs together with our PhD student Baiba Šmita-Roķe visited Vilnius Gediminas Technical University, where they presented their research on a method to estimate the impact of consumption taxes on income inequality at the international scientific conference "Business and Management 2022". Conference publications are available at: <http://bm.vgtu.lt/index.php/verslas/2022/schedConf/presentations>. Māris Jurušs has already carried out several studies in this area, based on thesis statements from his PhD Thesis publicly presented in 1999. The results of this research have been integrated into the study process and the corresponding publications are used as study materials.

Ieva Andersone, who is implementing the study course "Innovative Product Development and Entrepreneurship" and "Marketing", has several scientific publications in the field of innovation, such as "The Phenomenon of Traditional Masculinity and Its Impact on Advertising: A Qualitative Study Based on Consumer Engagement in Digital Environment" (2022), "Changes in Generations X and Y Consumer Behavior Caused by the COVID-19 Pandemic" (2022), and others. Ieva Andersone has participated in such RTU research projects as "Implementation of Innovative Extraction Technologies for the Production of Biologically Active Products", "Methods of Critical Infrastructure Control", Project 5.2.2 "Innovation and Entrepreneurship Development in Latvia according to the Smart Specialization Strategy", "Entrepreneurship Research Development at the Higher Education Institution: Transfer of International Experience".

Aramina Daira has participated in several research studies, the results of which have been published in several scientific articles, including "Interrelation of Process Management and Employee Stressors in Organization" (2021), "Role of Organizational Culture in the Quality Management of University" (2015). The research findings are used in the study process, both in the course "Introduction to the Specialty", and in the supervision of graduation papers.

Bartušauskis Jānis has authored several publications based on relevant scientific research, including "Needs-Based Education and Studies in Societal Security (NEEDS)", "Scientific Substantiation of the Material, Technical and Financial Support Necessary for the Effective Functioning of the SFRS". The findings from publications on sustainability, including "The Concept of Sustainable Economic Development and Social Responsibility in the European Union" (2021), "Analysis and Improvement of Factors Affecting the Quality of Working Environment" (2019) are used in the organization of the

study process in occupational safety study courses, organization of practical placements and supervision of graduation papers.

Bazone Guna specialized in the field of labour protection; her publications on the working environment risk structure in Latvia and their impact on employees performing remote work during the Covid-19 pandemic (2022), "Risk Sources (Events) for Fire Risk Assessment in Order to Plan Necessary Measures in Urban Areas" (2021) are useful in study courses on security engineering.

Berziņš Jānis published scientific articles "Improvement of the Labour Protection System through Electrical Work in the Railway Transport Sector" (2022), "Labour Protection Measures to Improve Working Conditions in the Metalworking Industry" (2022) that are used in several study courses on occupational safety.

Professor Ieviņš Jānis has been involved in numerous studies on occupational health and safety issues, including "Measurement of Electromagnetic Fields in Enterprises, Identification of Specific Risks at the Ventspils Nafta Terminal", "Cross-Border Initiative to Establish a Disaster Management System in Neighbouring Regions of Latvia and Lithuania", "Development of a Quantitative Fire Risk Assessment Methodology for Latvian Educational Institutions", "Establishment of Needs-Based Education and Studies in Societal Security (NEEDS)", "Scientific Substantiation of the Material, Technical and Financial Support Necessary for the Effective Functioning of the SFRS", "Scientific Substantiation of Labour and Civil Protection". The research results have been published in the scientific articles "Improvement of Visual Inspection Method for Determining the Risk Level of Environmentally Degrading Structures" (2022), "Improvement of Work Organization Methods for Reducing Exposure to Ergonomic Risk Factors" (2022), as well as included in the topics of study courses on labour protection.

Vladimirs Jemeljanovs has been involved in security research: "Creation of Unified Study Courses in Social Security" / "Needs-Based Education and Studies in Societal Security (NEEDS)", "Scientific Substantiation of the Material, Technical and Financial Support Necessary for the Effective Operation of the SFRS", as well as co-authored several publications, such as "Improvement of the Algorithm for Conducting Railway Transport Accident Response Work" (2022), "Differences in the Application of Methods for Assessing the Effects of Accidents and the Impact on the Risk Level at the Increased Hazard Object" (2021).

Jeļena Pundure is a co-author of many publications on labour protection, including "Optimal Solutions for Special Machinery and Equipment Norms Required by the Latvian State Fire and Rescue Service" (2022), "Development of Labour Protection Requirements for Officials of the State Fire and Rescue Service by Performing Preventive, Preparedness, Response and Mitigation Measures in Case of Leakage of Dangerous Chemicals at in Increased Hazard Objects" (2021). The findings are used in the study courses "Civil Protection".

The experience gained by Leonards Budņiks in the SME Coaching: 5 POINTS training programme project is very useful for the organization of study courses "Business Data Analysis Technology".

Ingūna Jurgelāne-Kaldava implements study courses on International Business Planning, which also incorporate findings from research and projects, including "Developing Professional Logistics Education at Central Baltic University Level", "Innovations in Social Entrepreneurship Education", "Explore the Competitiveness of Latvian Enterprises in Foreign Markets and Make Proposals for its Strengthening" (EKOSOC\_LV 5. 2.1), "Reducing Fragmentation of Riga Technical University Study Programmes and Strengthening Resource Sharing", as well as from publications "The Methodology for Economic Assessment of Planned Investment" (2022), "Selection of Logistics Service Providers: Critical Analysis of Methods" (2021) and others.

In general, the research process of the academic staff involved in the study field is characterized

by: the number of patents nominated and obtained by the academic staff, the number of publications by the academic staff, the number of PhD Theses supervised and defended by the academic staff, the number of research projects.

Figure 2.4.1 shows the number of publications per year by Scopus/WoS and other publications.

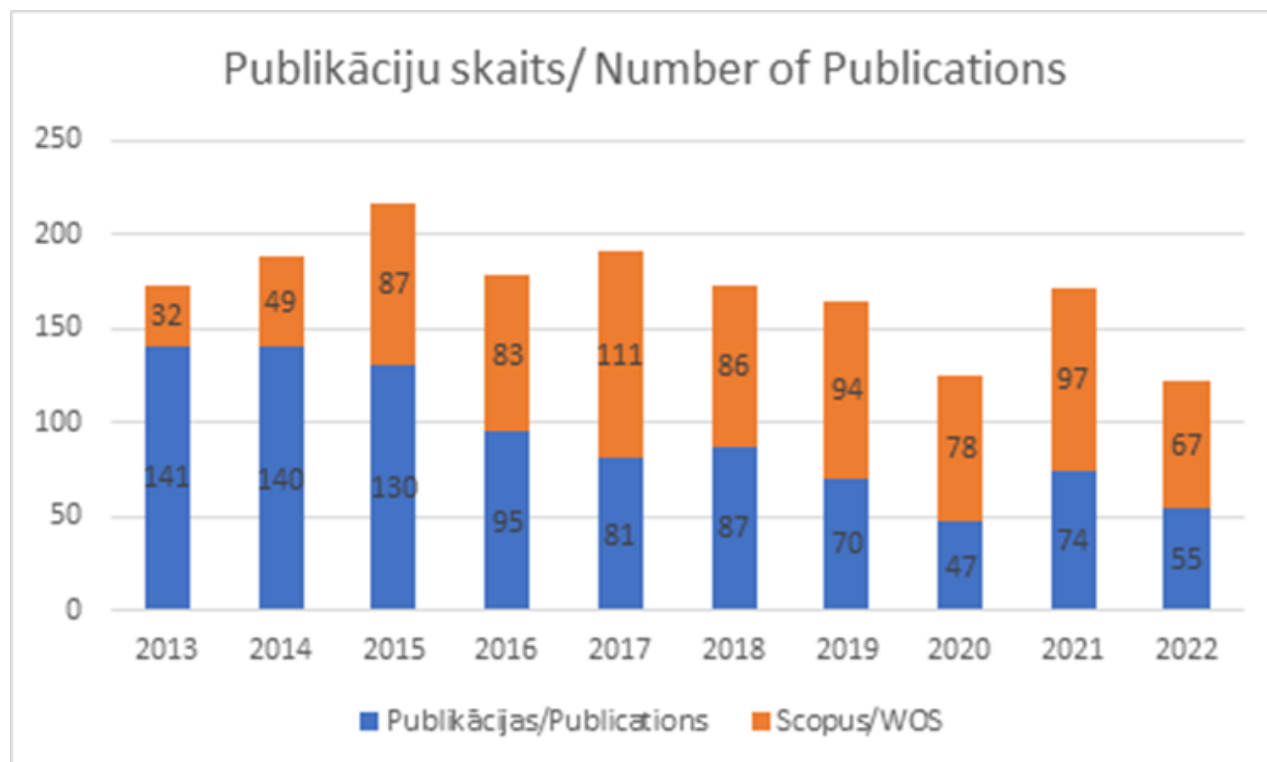


Figure 2.4.1. Number of publications

As shown in Figure 2.4.1, the academic staff involved in the study field publish more than 100 scientific articles each year. For example, in 2015 there were 217 publications.

All publications have a very high citation rate. As shown in Figure 2.4.2, for example, in 2017 publications were cited a total of 793 times.

Overall, both the total number of publications and their citation rate are increasing. The total number of publications has already reached 920, including 784 in Scopus/WoS.

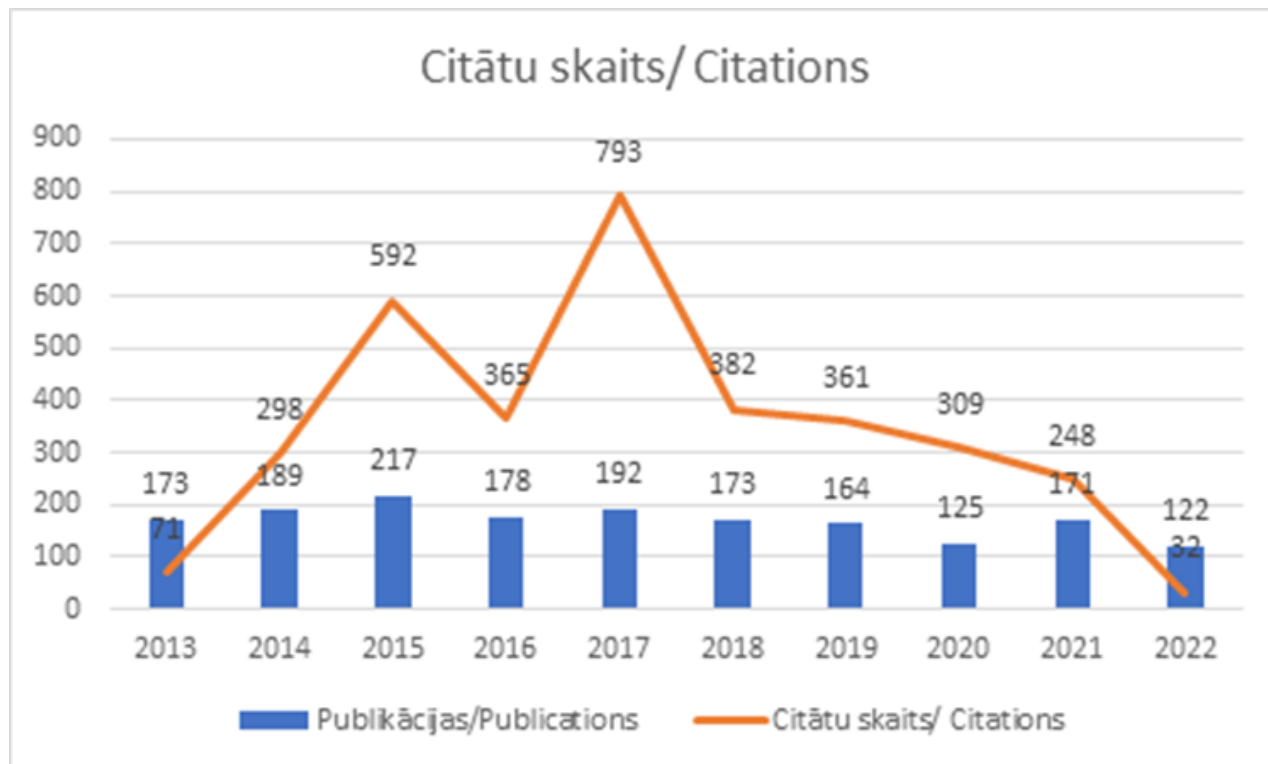


Figure 2.4.2. Number of citations

The staff involved actively participate in scientific research, with more than 20 lecturers having more than 45 scientific publications. Detailed information on the publications of the staff is available in the Annex.

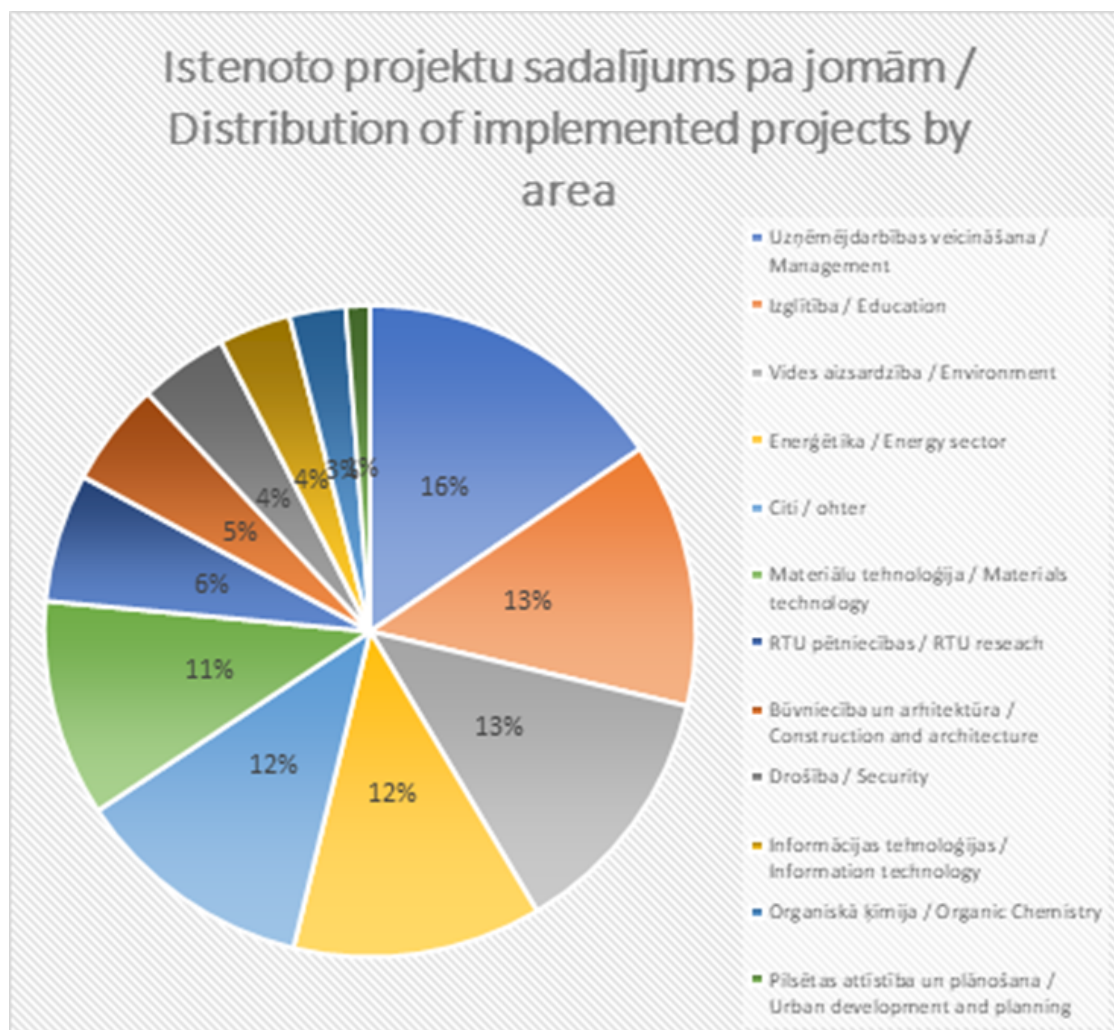


Figure 2.4.3. Number distribution of implemented project by area

The staff involved in the study field actively participate in the supervision and review of PhD Theses, as well as in the implementation of the Doctoral study programme. Currently, the staff members involved in the study field supervise 6 PhD Theses. Māris Jurušs delivers several lectures within the course "Contemporary Social Science Theory" of the Doctoral study programme.

During the reporting period, the academic staff responsible for the study field have participated in the supervision of PhD Theses or have publicly presented them:

- Māra Pētersone, "Integrated Approach of Customs Service Human Resource Management Strategy" (2015), supervisor: Aivars Vilnis Krastiņš;
- Nadežda Semjonova, "Government Debt Policy Modeling" (2015), supervisor: Kārlis Ketners
- Justīna Hudenko, "Elaboration and Design of Public-Use Railway Infrastructure Optimal Development Models" (2017), supervisor: Remigijs Počs
- Mihails Urbans, "Methodology for Assessment of Economic and Environmental Losses in High Threat Objects" (2021), supervisor: Jeļena Pundure;
- Aldis Čevers, "Systemic Solution for Customs Process Management and Organisation Evaluation" (2021), supervisor: Aivars Vilnis Krastiņš.

In addition, other academic staff involved in the implementation of the programme have been supervisors of PhD students, supporting a total of 43 PhD holders.

**2.4.5. Specify how the involvement of the students in scientific research and/ or applied 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 field in scientific research and/ or applied research and/or artistic creation activities by giving examples of the opportunities offered to and used by the students.**

RTU has mechanisms for involvement of students from all study levels and programmes in research activities. 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 (circa 134,000 EUR are allocated to one project). 16 post-doctoral 3-year long projects were launched in 2018 and 12 post-doctoral 3-year long projects were launched in 2019 with total funding of 3.7 million EUR. 18 post-doctoral 3-year long projects with a total funding of 2.4 million EUR have been launched in 2020. In 2021, at least 10 projects should be launched. 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 RTU Science and innovation centre (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.



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 DF 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 DF 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.

On the basis of DF, in January 2022 the RTU Science and Innovation Centre was opened (<https://www.rtu.lv/en/research/science-and-innovation-centre>). The Science and Innovation Center (SIC) enables the capacity of innovators, implements innovation and knowledge transfer processes, attracting, balancing and adjusting the resources necessary to ensure the innovation system and operation in the following main aspects:

1. Helping innovators to improve their knowledge and skills in various entrepreneurship development programmes. More than 1,000 RTU students and 300 students from other universities take part in them every year.
2. By implementing various activities that ensure the generation of ideas: development of ideas (prototyping), pre-incubation, an incubator of science-intensive ideas and an accelerator of climate neutrality. More than 150 teams receive support every year.
3. Implementing partnerships, representing innovation and knowledge ecosystems in Latvia and the Baltics.

ZIC's support to students and scientists by enabling their skills and providing open infrastructure develops their prototyping skills and collaboration with industry. The goal is to integrate ZIC activities in the distribution of state funding, as an important parallel process in the improvement of educational research.

At the same time, the ongoing of cooperation with the European institutions is taking place. It ensures the transfer of experience, knowledge, mobility and promotion of RTU services. An important direction is the development of products with added value, where it is necessary to stabilize the flow of requests.

In the field of innovation capacity in security, there is close cooperation with the Ministry of Defense of the Republic of Latvia. In 2020 the first "Security Hackathon" was implemented, where more than 100 participants within 48 hours developed prototypes of security solutions, demonstrating their operation to the jury. This successful event and active participation of RTU scientists in the "Innovation grant competition" of Defense, a repeated event was held in 2022.

At the same time, active work is underway to the implementation of the NATO acceleration programme "Defence Innovation Accelerator for the North Atlantic" in Latvia, which would provide additional support to start-ups in the security sector.

Student research has always been one of the most important elements of the study process in the study field "Internal Security and Civil Protection". Students are actively involved in research projects and joint publications.

Students of the professional study programme "Fire Safety and Civil Protection" together with academic staff of the Institute of Occupational Safety and Civil Defence published several scientific articles in local scientific journals, SCOPUS and Web of science database journals. For example, 7 articles were published in the scientific journal "Safety of Technogenic Environment" of RTU Institute of Occupational Safety and Civil Defence in 2008-2015. Also in close cooperation with lecturers of the Institute of Occupational Safety and Civil Defence and not only, students of the professional study programme "Fire Safety and Civil Protection" participate in various international scientific conferences not only in Latvia, but also abroad. For example, one student participated in the 20th International Scientific Conference "Economics and Management 2015 (ICEM-2015)" (Lithuania) and together with academic staff of the Institute of Occupational Safety and Civil Defence published a scientific article in SCOPUS database, also 2 students presented reports at the annual International Scientific Conference "Economic Science for Rural Development" (Jelgava) and subsequently published scientific articles in ISI Web of Science indexed journals. It is important to note that the academic staff of the Institute of Occupational Safety and Civil Defence closely support the students of the professional study programme "Occupational Safety" by offering students the opportunity to try their hand at research. In 2020-2021, three Master students delivered presentations at the annual International Scientific Conference of Riga Technical University and successfully published theses in the book of abstracts.

RTU regularly organizes Student Scientific and Technical Conferences.

In 2020, during the 62nd Student Scientific and Technical Conference, in the section "Safety of the Technogenic Environment", students of the professional Master study programme presented their research projects, thus obtaining credit in the study course "Scientific Seminars". A book of abstracts was also published after the conference (<https://ebooks.rtu.lv/product/tehnogenas-vides-drosiba/>). On 22 April 2022, the Institute of Occupational Safety and Civil Defence, in cooperation with the Council of the Baltic Sea States, organized the conference "What is the New Normal in Societal Security? ", attracting not only students of the Institute of Occupational Safety and Civil Defence but also international students, lecturers and practitioners from other Baltic Sea Region countries.

In academic year 2021/2022, two students of the professional Bachelor study programme "Safety Engineering" had an undergraduate practical placement at the Swedish Defence University, where they conducted research not only as part of their Bachelor Thesis but also as part of the Erasmus+ project NEEDS, i.e. they developed case studies on the impact of pandemics on public security.

In 2012, a special collection of scientific papers of students of the study programme "Administration of Customs and Taxes" was published. In recent years, students' theses are regularly published in the ORTUS e-system under the section "Students' Theses" for the respective year, while the best students' theses are published in the collection of students' theses of RTU Student Scientific Conference. For example, in 2020 the publication "SOLUTIONS FOR DETERMINATION OF THE VALUE OF A BUSINESS MARKET FOR CUSTOMS AND TAXES" by the 2nd year Master student of the Faculty of Engineering Economics and Management Kristīne Felzenberga was included in the collection of students' theses. Scientific adviser: Dr.oec., Associate Professor Māris Jurušs. Available at: [RTU Studentu zinātniskās konferences tēžu krājums 2020](#)

Students of the professional study programme "Administration of Customs and Taxes" are actively involved in scientific activities, and the research and publications resulting from scientific activities are used in the study process. In recent years, almost all publications have been produced with the participation of students. For example, in 2018, Master student Ģ.Feldbergs conducted research on the new VAT system in the EU (scientific adviser: Dr.oec. Māris Jurušs). The results were presented by Ģ.Feldbergs at the Student Scientific Conference, and the research results were also published

(indexed in EBSCO): Jurušs, M., & Feldbergs, Ģ. (2018). Management of Tax Payments under the Definitive Value Added Tax Regime. *Economics and Business*, 32(1), 65-73.

On 23 and 24 April 2018, at the First Joint Student Scientific Conference of the Faculty of Engineering Economics and Management of Riga Technical University and the Faculty of Business, Management and Economics of the University of Latvia, Marika Ragucka-Ragovska, a student of RTU FEEM Master study programme "Administration of Customs and Taxes", was recognized as one of the authors of the best paper. The topic of her research paper was "The Interaction between Customs Value and Transfer Pricing".

Students of the study programme "Administration of Customs and Taxes" of RTU International Business and Customs Institute presented their research results in the 60th Student Scientific and Technical Conference, which took place from 23 to 29 April 2019.

On 20 April 2020, students of the study programme "Administration of Customs and Taxes" of the International Business and Customs Institute presented their research "Prevalence of Unregistered Employment in Latvia and Opportunities to Combat it" in the section "Taxes and Customs" of the 61st RTU Student Scientific and Technical Conference. The conference was also attended by representatives of the Latvian Tax Consultant Association and the State Revenue Service. The research explains the reasons and the public acceptance of the existence of such employment in our country. The research under supervision of assoc. prof. M. Jurušs and assist. prof. J. Hudenko was conducted by the students of the International Business and Customs Institute: Ieva Nagle, Ilvija Ulmane, Aleksandra Šutova and Bruno Bergmanis. The research employed a quantitative research method - survey.

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

New approaches are being used for the development of the study field "Internal Security and Civil Protection" and the improvement of the study process. The current shift from "teaching" to "learning" has implications for the methodology of course delivery. Interactive and innovative study methods are of particular importance here. The knowledge generated by research and scholarship is used in the study process. Organizational innovation, on the other hand, is based on the digitalization of study courses.

In 2014, Professor Vladimirs Jemeljanovs together with students conducted the study "Worldwide Tragedies during Evacuation of People due to Mass Crushing" and developed a unique formula. The formula calculates the critical time for evacuation of people from the premises and the building as a whole, after which fire hazards will pose a serious danger to people. The formula is successfully used by students in their laboratory work as well as in their professional experience, performing work duties.

In 2013, Māris Jurušs together with Normunds Rudzītis conducted research "Natural Losses of Petroleum Products and Alcoholic Beverages in Customs" (FM 2013/1-ESF/SFTP), where they developed an innovative approach to calculating losses of petroleum products. The results of this study were used by the Ministry of Finance to clarify the legislation on customs and tax control in the movement of petroleum products. The research results were also published: Jurušs, M., & Seile,

E. (2017). "Application of loss rates for petroleum products due to natural wastage in customs procedures", *Procedia Engineering*, 178, 377-383. Students were involved in both the research process and the development of the scientific article. The scientific article and the research report are also used in the study process to discuss the issue of the application of customs duties to petroleum product losses within the courses of the study programme "Administration of Customs and Taxes".

On 15 December 2016, the opening of the remote classroom of the Department of Customs and Taxes of RTU FEEM International Business and Customs Institute took place at RTU FEEM Kalnciema Street 6. The first lecture was delivered remotely to students of the Higher Military Customs Institute of Uzbekistan. The distance learning classroom was created to cover the widest possible audience for customs training both in Latvia and internationally, and the cooperation agreement between the Department of Customs and Taxes of the International Business and Customs Institute and the Higher Military Customs Institute of Uzbekistan provides that distance learning will be used for training of both Latvian and Uzbek customs officers. The distance learning system was developed in 2016 during the 9th phase of the project "European Union Border Management Programme in Central Asia" (BOMCA-9), when RTU experts in Uzbekistan assessed the existing situation and selected the necessary technical solutions during technical missions. As a result, with the financial support of the BOMCA-9 project, a distance learning classroom was equipped with multimedia devices at the Higher Military Customs Institute of Uzbekistan. The Department of Customs and Taxes of the International Business and Customs Institute in cooperation with RTU Riga Business School, using its own funds, set up and equipped a distance learning classroom at the FEEM. The first lecture on distance learning was held on 24 November and was delivered by RTU assistant professors Aivars Gulbis and Aldis Čevers to the students of the Higher Military Customs Institute of Uzbekistan. The establishment of a distance learning system for customs officers between RTU and higher education institutions and training centres for customs officers in other Central Asian countries - Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan and Tajikistan - continued in 2017:

- 17 February 2017. Assistant Professor of the Department of Customs and Taxes of RTU International Business and Customs Institute Normunds Rudzītis delivered an online guest lecture "Corruption Risk Management System" for students of the Higher Military Customs Institute of Uzbekistan.
- March 2017. Assistant Professor of the Higher Military Customs Institute of Uzbekistan A. Pulatova delivered an online guest lecture "Current View on International Trade Goods Classification Issues" for RTU students.
- April 2017. Assistant Professor of the Department of Customs and Taxes of RTU International Business and Customs Institute Aldis Čevers delivered an online guest lecture "INCOTERMS Rules for International Supplies" for students of the Higher Military Customs Institute of Uzbekistan.
- May 2017. Candidate of Economic Sciences, Assistant Professor of Higher Military Customs Institute of Uzbekistan S.Gulyamov delivered an online guest lecture for RTU students "Peculiarities of Customs Control of Art and Historical Objects".

Associate Professor Māris Jurušs regularly participates in academic conferences organized by FEEM, where together with other colleagues he discusses innovative organizational methods for improving the study process. For example, in 2018 Māris Jurušs presented recommendations for the development of the graduation papers, and in 2022 - innovative solutions for the digitization of study courses. Publications on the relevant topics are available in RTU Library e-resources. These methods are successfully used in the study process.

From November 2021 to July 2022, Associate Professor Māris Jurušs participated in the ESF project

No. 8.2.3.0/18/A/012 "Development of Efficient Governance of Riga Technical University", within which he digitalized several study courses (Tax Planning, Taxation Analysis and Forecasting) and created interactive videos, tests, assignments and other innovative learning materials.

Since 2017, students have access to two learning laboratories with equipment (a fire safety laboratory and an occupational safety laboratory, which are continuously updated). The fire safety laboratory is used for research work on the effectiveness of fire extinguishing with foaming agents, surfactants and their mixtures with water, which is used in practical work and in the development of diploma projects. The following equipment has been purchased to carry out laboratory work in the courses "Fire Investigation" and "Safety in the Use of Hazardous Substances": an optical heat detector and a PPE 3000 gas analyzer and other equipment. A training laboratory equipped with special equipment has been set up to enable practical training and analysis of fire-fighting performance. The laboratory has been equipped with new devices enabling practical training and laboratory work on fire protection systems - fire detection and alarm systems, and new equipment enabling practical training and laboratory work on smoke extraction systems. In 2019, the functionality of the laboratory equipment was also extended by integrating new components and their interaction with the existing automatic fire extinguishing system, fire detection and fire alarm system training stand. The establishment of a training laboratory on the basis of the Institute of Occupational Safety and Civil Defence has enabled a significant modernization of the study process.

On 18 April 2019, the Customs Control Laboratory was opened at the Faculty of Engineering Economics and Management, Riga, Kalnciema Street 6. The Customs Control Laboratory was established with the support of the Customs Administration of the State Revenue Service. The opening ceremony was also attended by officials of the Customs Administration of the State Revenue Service, experts and cynologists with a service dog.

The laboratory provides opportunities for students to acquire and develop practical skills. The laboratory is equipped with various measuring devices and technical aids used by customs officers in their daily work when inspecting vehicles and persons, such as density and radiation flow measuring devices, metal detectors, endoscopes, drug tests, etc., which allow them to check vehicles for contraband goods. To train students to find contraband goods, special hiding places have also been set up in hollow boards, car doors, seats, fuel tanks and tires. The laboratory thus simulates hiding places frequently used in Latvia for the transport of illicit goods. The laboratory is also equipped with equipment to show various customs control training films and videos.

The Department of Customs and Taxes of International Business and Customs Institute also houses RTU History Museum of Customs and Taxes, which was established in 2008 by the Department in cooperation with the State Revenue Service (SRS) on the occasion of the 90th anniversary of the Latvian state. The Museum is an educational and research institution open to the public, a repository of tangible and intangible cultural assets on the history of Latvian Customs and Taxation from the earliest times to the present day. The Museum is under the administrative authority of RTU Department of Public Affairs, and its methodological activities are supervised by RTU Department of Customs and Taxes.

The museum offers an exhibition "Taxes and Customs in Latvia", which tells the story of:

- the oldest forms of payment and the procedure for their collection;
- the tax and customs system of the Republic of Latvia from 1918 to 1940;
- taxes and customs from 1940 to 1990;
- the taxes, customs and their collection in the restored Republic of Latvia;
- excise goods and smuggling.
- The exhibition includes historical documents from different periods, a collection of customs uniforms, and films on taxation and customs in Latvia and the European Union.

One of the museum's tasks is to carry out scientific, educational and cultural work in the museum, conducting overview and thematic excursions, and giving lectures according to the museum's profile. Classes on the subject "Introduction to Speciality" are organized in the museum premises. It is visited by students, pupils and other interested persons from RTU and other universities.

On 18 May 2019, RTU History Museum of Customs and Taxes in cooperation with the Customs Administration of the State Revenue Service participated in the Museum Night 2019, which was attended by more than 1200 people. Visitors could learn how smugglers' hideouts were detected with the help of technical means and dogs, find out how counterfeit goods could be distinguished from genuine ones and which souvenirs not to bring from abroad.

## **2.5. Cooperation and Internationalisation**

**2.5.1. Provide the assessment as to how the cooperation with different institutions from Latvia (higher education institutions/ colleges, employers, employers' organisations, municipalities, non-governmental organisations, scientific institutes, etc.) within the study field contributes to the achievement of the aims and learning outcomes of the study field. Specify the criteria by which the cooperation partners for the study field 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 cooperation partners.**

### **Cooperation with institutions: criteria for selecting partners, areas for cooperation**

RTU study field "Internal Security and Civil Protection" regularly cooperates with state institutions, companies, industry associations, various organizations and other higher education institutions. Cooperation is one of the most important factors in promoting and ensuring the achievement of the aims and learning outcomes of the study field. The main criteria for selecting cooperation partners are:

1. Leading national organizations and institutions (The State Revenue Service (SRS), Ministry of Finance, State Border Guard, Ministry of Foreign Affairs, Food and Veterinary Service, State Fire and Rescue Service of the Ministry of the Interior, National Audit Office, municipalities, etc.)
2. Public organizations and employers (Employers' Confederation of Latvia, Latvian Association of Labour Protection Specialists, Association of Competent Institutions for Labour Protection, Latvian Logistics Association, Latvian National Association of Freight Forwarders and Logistics "LAFF" and Association "Latvijas Auto", Latvian Association of Civil Engineers, Latvian Firefighters' Union, etc.);
3. Leading universities and research institutions in Latvia that conduct research and organize education and training in the field of internal security studies.

In total, the study field has 62 cooperation agreements signed with various organizations, municipalities, universities, including 16 agreements with institutions in Latvia on cooperation in the areas of teaching, research, qualification enhancement, providing internships for students and other areas, (See the Appendix "List of Cooperation Agreements").

**The main areas of cooperation are:**

- Improving the quality of the study process and the quality of studies by attracting highly qualified specialists from the public and private sectors;
- Ensuring practical placements and students' professional development by offering practical placements and often jobs after successful completion of an practical placement;
- Supervising and reviewing study and graduate papers (Bachelor and Master papers), assisting students in the selection and formulation of research themes, e.g., by proposing topical issues in the industry, policy or business for which students can develop solutions, proposals, etc.
- Assisting with the integration of the latest information and technologies (including databases) into research, study and training;
- Promoting scientific research in areas of economic importance;
- Commissioned research on problems of interest to the sector, validation of scientific research results;
- Involvement of professionals, experts from outside the university in the study process (professional advancement courses, lectures and practical classes, guest lectures, conducting practical placements, etc.);
- Cooperation in international projects (European Union Border Management Programmes in Central Asia (BOMCA-9, 10, etc.);
- Organization, participation and implementation of extra-curricular activities (Career Days, Open Days, RTU Graduation ceremonies, various types of support for student recruitment events, opening of the Customs Laboratory, Museum Night, etc.);
- Participation in the work of the State Examination Commission;
- Participation in the work of the Study Field Commission;
- Organization of joint conferences;
- Participation in joint research projects;
- Representation of the interests of the University and industry in national and international organizations (World Customs Organization, European Commission, Ministry of Finance, SRS Customs Administration, etc.).

### **Cooperation with institutions in Latvia to improve the content of the study programmes**

One of the ways to promote cooperation and improve study programmes is through **the Advisory Board of the Faculty of Engineering Economics and Management**.

It was established in November 2017. The aim of the Board is to promote the development of RTU and the Faculty in line with RTU Strategy and the needs of the national economy. It is composed of 11 members - experts in the field of economics whose main job is outside the RTU and who can contribute to the development of the Faculty with their professionalism and work experience.

The tasks of the Advisory Board are (1) to advise the administration of the Faculty, to give opinions to the Council of the Faculty and the Dean on issues of the Faculty development strategy; (2) to support the development of material and financial resources of RTU; (3) at least once a year to evaluate the activities of the Faculty, to give opinions and proposals on the development of the Faculty and RTU in general, improvements of the study process, planned financial investments, management model changes and other relevant issues of the Faculty activities.

The university also organizes regular events and conferences where all the parties - employers, graduates, academic staff and students - can meet. These include discussions on the quality of programmes, the content and format of study courses, the organization and implementation of practical work. Surveys of graduates and employers are carried out regularly. Respondents are asked to evaluate the programmes, the knowledge and skills of the graduates and their relevance to the requirements of the labour market.

## **Cooperation in the development of occupational standards**

Study programmes are regularly developed and updated to take account of changes at both international and national level. Experts in the field participate in the development of occupational standards, ensuring that RTU study programmes comply with the requirements and are updated as necessary.

For example, FEEM specialists participate in the development and improvement of the Latvian National Occupational Standards in close cooperation with the SRS National Customs Board and private sector employers. In cooperation with the Employers' Confederation of Latvia (LDDK) and the Latvian Association of Occupational Health and Safety Experts (LDASA), the Faculty Members of the Institute of Occupational Safety and Civil Defence participate in the development of the occupational standard "Occupational Safety Engineer" for the study programme "Safety Engineering" and the occupational standard "Chief specialist in Occupational Safety" for the study programme "Occupational Safety", while the faculty members of the study programme "Fire Safety and Civil Protection" together with the State Fire and Rescue Service of Latvia participate in the development of the occupational standard "Fire Safety and Civil Protection Engineer".

Study programmes are also being developed. All major changes to study programmes are reviewed by the Study Field Committee, which also includes experts from the public and private sectors.

The quality and relevance of study programmes to requirements and current trends are also ensured by the involvement of academic staff in expert councils.

### **Participation of the academic staff in expert councils of national importance:**

- Assistant Professor of professional programmes Aivars Gulbis is a member of the Consultative Council of the Ministry of Finance of the Republic of Latvia, the Consultative Council of the SRS, and the Council of the Confederation of Employers of the Republic of Latvia;
- In 2015, Professor V.Jemeljanovs participated as an RTU expert in the work of the Parliamentary Investigatory Committees of the Saeima of the Republic of Latvia on the actions of the Latvian State in assessing the causes of the tragedy that occurred in Zolitude on 21 November 2013, and in addressing the further actions taken to regulate the legislation and activities of state administration and local governments to prevent the recurrence of tragedies, as well as on the actions to prevent the consequences of the tragedy;
- Associate Professor J. Pundure has been an expert at the Quality Agency for Higher Education (QAHE) since 2015;
- Professor J. Ieviņš, prof. V. Jemeljanovs, assoc. prof. V. Urbāne and assoc. prof. J. Pundure serve as experts at the Latvian Council of Science (LCS) ;
- Associate Professor M. Jurušs is an expert at the LCS. From 2017 to 2019 he was a member of the Board of the LCS. M. Jurušs is a member of the Excise Advisory Council of the State Revenue Service, a member of the Board of the Latvian Tax Consultants Association.

### **Cooperation with institutions in Latvia to ensure a high quality study process**

The programme "Administration of Customs and Taxes" provides study and training in the areas of customs and taxation in close cooperation with the State Revenue Service. Students are taught by the SRS experts who are able to provide students with the most up-to-date information and trends in the field. This cooperation has been based on bilateral agreements since 1994. RTU has two cooperation agreements with the SRS. One of them, signed on 23 March 2009, provides for joint cooperation in such areas as provision of practical placements, study process, development/improvement of study programmes in line with the industry requirements, scientific research, elaboration of graduation papers, etc. There is also an agreement with SRS on qualification enhancement and training of the SRS employees.



The highly qualified specialists from the field are involved as lecturers, guest lecturers and diploma project supervisors, as well as the members of the State Examination Commission in the implementation of the study programme "Fire Safety and Civil Protection" and the work of the Institute of Occupational Safety and Civil Defence and the Department. For example, as a result of cooperation with the Fire Safety and Civil Protection College of the State Fire and Rescue Service of the Ministry of the Interior, in some study courses students are provided with the opportunity to carry out laboratory work and introductory sessions with firefighting equipment, which facilitates the link between theoretical knowledge and practical experience.

Within the framework of other study courses, in cooperation with the Operational Control Centre of Civil Protection, students have the opportunity to get acquainted with its activities, the work of the Civil Alarm and Public Address System Control Centre, the work of the single emergency telephone number 112 Operation Support Centre, as well as to get acquainted with the implementation of the requirements set out in the regulatory enactments in the activities of the State Fire and Rescue Service.

Thanks to the cooperation with "Sertifikācijas un testēšanas centrs" Ltd. (Center for Certification and Testing), students have the opportunity to visit this organization and learn about the testing and conformity assessment of work equipment in accordance with the requirements of the legislation during the study course "Work Equipment Safety".

As a result of long-term cooperation with the State Police Forensic Service Department "Organization of Fire Security Preventive Works and Fire Investigation", students of the course have the opportunity to carry out practical work and get acquainted with the working methods of experts.

The link between practical and theoretical knowledge of occupational safety and health is facilitated by cooperation with Latvijas Finieris Ltd., where students have the opportunity to see how the knowledge they acquire in the course "Labour Protection and Safety" is applied and implemented in real life.

To raise awareness of the capacity of the civil protection system and the cooperation between institutions in crisis situations, students are shown how services involved in crisis response work together. For example, on 3 November 2022, the first-year students of the study programme "Safety Engineering", within the framework of the study course "Occupational Health and Basic Principles of Industrial Medicine", took part in theoretical disaster management scenario training at the NMC (Emergency Medical Centre) and OVG (Operational Management Group), which was held at Pauls Stradiņš University Hospital. The exercise involved a situation in which a large number of people suffered various types of injuries, including chemical burns, following an explosion in a factory.

### **Cooperation with institutions to provide high quality practical placement opportunities for students**

All study programmes include and provide an practical placement at a public institution or company, including the State Revenue Service, the State Fire and Rescue Service (SFRS). Successful cooperation with sectoral organizations and companies, governed by cooperation agreements, is an important factor in providing quality practical placement opportunities for students in the fields of customs and taxation, labour protection, fire safety and civil protection.

The cooperation between RTU and SFRS in providing practical placements is regulated by the cooperation agreement on employee training signed on 31 May 2007, while the cooperation agreement with the Employers' Confederation of Latvia, Association of Competent Institutions of Labour Protection (DAKIB) and other institutions provide practical placements for students of study

programmes "Safety Engineering" and "Occupational Safety".

A tripartite agreement is concluded between the student, RTU and the institution providing practical placement (practical placement agreements are drawn up separately for each student in the ORTUS system).

**General principles of practical placement in the study programme "Administration of Customs and Taxes":**

- Students are mainly offered practical placements at the State Revenue Service (students specializing both, in customs and tax administration), private companies (logistics, transport, customs brokerage).
- Part-time students whose workplaces can support the study programme are allowed to complete their practical placements at their workplace.
- In cases where the student has extensive work experience, the practical placement can be recognized and the required credit points awarded. In this case, a committee is set up to assess whether the work experience ensures that the tasks of the practical placement are met.

The practical placement is organized in accordance with the Senate Decision "On the Procedure of Organizing the practical placement at RTU" of 28 January 2019 and the practical placement Regulations approved by the Department. Before the start of the practical placement, a tripartite practical placement agreement is signed, a coordinator and an practical placement supervisor are appointed (practical placement Regulations in Appendix).

The institutions and companies that have been most active in recruiting students for practical placement are the State Revenue Service, JSC Swedbank, JSC Rietumu Banka, Ltd. Deloitte Audits Latvia, Ltd. PricewaterhouseCooper, JSC KPMG Baltics, Ltd. Ernst&Young Baltic, Ltd. DHL Latvia, Ltd. Do it, JSC Latvijas Pasts.

**General principles of practical placement in the study programmes "Fire Safety and Civil Protection", "Safety Engineering" and "Occupational Safety":**

For the students of the study programme "Fire Safety and Civil Protection", practical placements are organized at the units of the State Fire and Rescue Service. During the practical placement each student shall have a supervisor from among the specialists of the State Fire and Rescue Service. At the end of the practical placement, the student shall submit an practical placement report and a feedback from the practical placement supervisor. The implementation of the practical placement programme is evaluated by a committee established by the Institute of Occupational Safety and Civil Defence and headed by an official of the State Fire and Rescue Service, taking into account the feedback of the supervisor at the place of practical placement. The practical placement is assessed in 10-point grading system. In 2019, the Methodological Instructions on the Organization, Implementation and Defence of Practical Placements at the Professional Engineering Study programme "Fire Safety and Civil Protection" were developed. In compliance with Cabinet Regulations No. 633 "Procedure for the development of the occupational standard, professional qualification requirements (if the occupational standard is not approved for the profession) and the qualification structure of the industry", the Methodological Instructions were revised as the previously approved occupational standard was updated in 2022. The draft occupational qualification requirements have now been submitted to the Tripartite Cooperation Sub-council of Vocational Education and Employment for consideration.

For the students of the study programmes "Safety Engineering" and "Occupational Safety", practical placement is mainly provided in cooperation with the Employers' Confederation of Latvia, the Latvian Forest Industry Federation and its member companies, the Association of Competent

Bodies for Occupational Safety, the Association of Mechanical Engineering and Metalworking Industries, etc. A tripartite agreement is concluded between the student, the company and RTU. During the practical placement the student has two supervisors - one from the RTU and the other from the company where the student undertakes the practical placement. After completion of the practical placement, the supervisor of the company gives his/her feedback and description of the student's performance during the practical placement, student's skills and competences, as well as assessment of the theoretical knowledge. The feedback received from the practical placement supervisor at the company serves as one of the indicators for the study programme administration to assess the quality of the study programme and make changes if necessary.

Additional support for development and improvement of practical skills is provided by the RTU Development Fund (<https://www.rtu.lv/en/developmentfund>), which offers a wide range of activities for students organized in cooperation with companies.

Students also meet the potential employers at RTU Career Days, which have been organized since 2004. Once a year, students from all faculties, including the FEEM students, can meet the representatives of various companies, either in person or virtually, to learn about the companies they are interested in and job opportunities. More information about the Career Day at RTU can be found at: <https://www.rtu.lv/en/studentsservice/career-centre/career-day>

Practical placements have also been organized for students outside Latvia. Based on a cooperation agreement with the Saint Petersburg National Research University of Information Technologies Mechanics and Optics, a student practical placement exchange programme was organized for several years. As part of the practical placement, a group of students from RTU travelled to St Petersburg, where they got acquainted with the work of Russian Customs Administration. A group of students from Russia undertook their practical placement in Latvia. However, it turned out to be difficult to implement such international practical placement exchange due to specifics and the nature of the security field, and the limited access of information. Therefore, the international practical placement was discontinued.

Cooperation with institutions in Latvia also takes place and is aimed at improving the quality of studies, expanding cooperation, raising awareness and interest in the study field, and attracting new students to the study programmes of the field.

### **Specific examples of cooperation between the State Revenue Service and the study programme "Administration of Customs and Taxes"**

- Jointly organized international conference "Is Customs Ready for Tomorrow?/Shaping a Smarter Future of Customs", organized by the International Business and Customs Institute, Faculty of Engineering Economics and Management, RTU and the SRS National Customs Board (7 November 2019). The leading experts from the World Customs Organization, European Commission, SRS, RTU International Business and Customs Institute and other institutions participated in the conference. Discussions on issues relevant to the development of customs were held with the participation of representatives from the European Customs Practitioners Network (PEN-CP), the International Association of Port Community Systems, Customs Authorities of the neighbouring countries, the US Embassy, SRS, State Police, universities and organizations in Australia, Germany, Poland, Switzerland, the Netherlands, NATO Strategic Communications Centre of Excellence, as well as companies such as Latvijas Pasts and Microsoft.
- **Practical training for customs students under the guidance of the SRS Customs Administration**

On 17 March 2022, practical training in identification of visual risk indicators and interviewing was

organized for 3rd-year students of the study course "Risk Management for Customs". The training was conducted by the staff of Riga Airport Customs Control Point of the SRS National Customs Board.

- **Guest lectures for students at the SRS**

On 21 March 2022, lectures on prevention of criminal offences in the field of customs were held at the State Revenue Service for the students of the study course "Risk Management for Customs". Lectures were given by the staff of the Tax and Customs Police Department of the SRS. The students also visited the Customs Laboratories of the Customs Administration, the Customs Risk Management Unit, the Customs Control Point and other departments of the SRS in order to have a more in-depth understanding of the system and the specifics of the SRS.

- **Visit to Latgale customs control points**

On 5 October 2020, the 4th-year students of the programme "Administration of Customs and Taxes" of the International Business and Customs Institute visited the customs control points of Grebneva, Karsava and Rezekne, as well as the State Border Guard College. The main topics covered were the cooperation between the State Border Guard, the National Customs Board of the State Revenue Service and the Food and Veterinary Service (FVS) Border Control Department, the operation of scanners for luggage, road and rail cargo at the border checkpoints, the analysis of the images obtained and the subsequent customs control solutions leading to the detection of customs offences.

- **Students of the study programme "Administration of Customs and Taxes" met with the SRS representatives**

On 6 March, 10, 11, 13 April and 26 September 2019, the Department of Customs and Taxes hosted representatives of the Tax Administration and Customs Administration of the State Revenue Service who introduced students to practical placement and job opportunities at the State Revenue Service.

- **Opening of the Customs Control Laboratory of the International Business and Customs Institute**

On 18 April 2019, the Customs Control Laboratory was opened at the Faculty of Engineering, Economics and Management of RTU. The Customs Control Laboratory was established with the support of the National Customs Board of the State Revenue Service. The laboratory provides students with opportunities to acquire and develop practical skills, as it is equipped with various devices and technical tools used by customs officers in their daily work when inspecting vehicles and persons, such as density and radiation flow measuring devices, metal detectors, endoscopes, drug tests, etc., which allow checking whether smuggled goods are hidden in vehicles, etc. Special hiding places in hollow boards, car doors, seats, fuel tanks and tires have also been set up to train students to find contraband goods during practical sessions. The laboratory thus simulates hiding places frequently used in Latvia for the transport of illicit goods. The laboratory is also equipped with equipment for demonstration of videos and films on customs control.

- **RTU International Business and Customs Institute together with the SRS National Customs Board organize a joint Museum Night event at RTU**

On 18 May 2019, RTU in cooperation with the National Customs Board of the State Revenue Service organized a Museum Night event at the RTU Museum of History of Customs and Taxes. More than 1200 people attended the event. Besides participating in an entertaining programme with games and live music, visitors could learn how smugglers' hideouts are detected with the help of customs technical means and dogs, find out how counterfeit goods can be distinguished and which souvenirs not to bring from abroad.

**The Ministry of Finance (MoF)** is one of the strategic partners of RTU FEEM International Business and Customs Institute. The Institute has cooperated with the Ministry of Finance in the areas of research on customs and taxation. The experts from the Ministry have participated in the Institute's conferences and State Examination Commissions. Students receive up-to-date information on tax policy from the leading experts of the MoF. Regular guest lectures on "Tax Topicalities" have been held at the Ministry of Finance, for example, on 18 October 2021, 26 October 2020, 29 October 2018 and in other years. The participants discuss the current situation with the state budget and forecasts and various other topical issues. The guest lectures are moderated by the Deputy State Secretary on Tax Policy Issues of the Ministry of Finance and other experts.

### **Cooperation with Latvian universities, research institutes**

The study field "Internal Security and Civil Protection" has cooperation with other Latvian higher education institutions. For example, in the field of border security the International Business and Customs Institute cooperates with Rezekne Academy of Technologies, Riga Stradiņš University (RSU) and State Border Guard College. Cooperation is taking place, for example, in the framework of the BOMCA project (the European Commission's project on border security in Central Asia) in the field of customs and border management studies and training.

The FEEM has signed cooperation agreements and agreements on opportunities for continuing studies with various Latvian colleges and universities. In the study field cooperation agreements on possibilities of continuing studies for the students when a programme is discontinued are signed with the University of Latvia and Rezekne Academy of Technologies.

### **Examples of academic staff involvement in cooperation between RTU and other educational institutions:**

- On 22 October 2020, Normunds Rudzītis, Assistant Professor at the Department of Customs and Taxes, RTU International Business and Customs Institute, participated in the conference "Border Security and Management" organized by Rezekne Academy of Technology and the State Border Guard College. In the panel discussion on the role of modern technologies and digitalization in law enforcement and education - necessity and challenges N.Rudzītis gave a presentation on the Challenges of Digitalization in Educational Process.
- RSU Assistant Professor, Dr.iur. A.Lieljuksis, is regularly involved as a lecturer in the study course "Risk Analysis" at the Master study programme "Administration of Customs and Taxes". In cooperation with RSU, a Master study programme for training lawyers in combating economic crimes was jointly developed in 2020.
- Assoc. prof. of the Institute of Occupational Safety and Civil Defence Jelena Pundure has been working as a member of the committee "Independent Promotion Council in Economics and Entrepreneurship" at Turība University since 2021.
- From 2013 to 2016, J. Ieviņš was the chairman of the State Examination Board of the professional Master study programme "Work Environment Protection and Expertise" at the University of Latvia.
- In cooperation with the Fire Safety and Civil Protection College of the Ministry of the Interior, the learning process and opportunities for practical and laboratory work are provided for students of the study programmes "Fire Safety and Civil Protection" and "Safety Engineering".

**2.5.2. Provide the assessment as to how the cooperation with different institutions from abroad (higher education institutions/ colleges, employers, employers' organisations, municipalities, non-governmental organisations, scientific institutes, etc.) within the study field contributes to the achievement of the aims and learning outcomes of the study field. Specify the criteria by which the cooperation partners suitable for the study field 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 cooperation partners.**

The choice of cooperation partners is based on the previous experience of the study field and cooperation of experts with international institutions in studies, science, project development, membership in associations, etc. forms.

The objectives of international cooperation of the study field "Internal Security and Civil Protection" include promotion and implementation of internationalization activities, including participation in international projects, representation of the study field in relevant international professional organizations, as well as improvement of the study programmes in accordance with international standards.

**Areas for international cooperation:**

1. Improvement of the RTU study process, achievement of the aims and learning outcomes based on the latest international regulations and examples of good practice in the world;
2. Active participation in the development and improvement of customs education in the world and in the European Union, as well as assistance to higher educational institutions and customs training centres of other countries, improvement of study programmes and teaching methods to ensure the implementation of occupational and educational standards of the European Union and World Customs Organization and improvement of border security.
3. Cooperation with universities, institutions and organizations to strengthen cooperation in the field of internal security in the Baltic Sea Region.

**The main criteria for selecting international cooperation partners are:**

1. International organizations that set international requirements for the development of the relevant field and for the qualification of staff (e.g., European Commission Directorate-General Taxation and Customs Union (TAXUD), World Customs Organization (WCO), etc.). RTU is actively involved in initiatives related to the development and improvement of customs education, the implementation of international standards for the customs profession in education.
2. Leading universities and research institutions in the world and Latvia that conduct research and academic work in the field of internal security (University of Münster (Germany), Charles Sturt University (Australia), Estonian Academy of Security Sciences, University of Customs and Finance (ex. Ukrainian Customs Academy (Ukraine), Saint Petersburg National Research University of Information Technologies Mechanics and Optics, North-West Academy of Public Administration (Russia), Higher Military Customs Institute of Uzbekistan, D.A.Tsenov Academy of Economics in Bulgaria, Al-Farabi National University of Kazakhstan)).

**A variety of methods are used to attract international partners:**

- participation in working groups to develop international normative documents;
- participation in the WCO PICARD programme;

- participation in the organization and implementation of international conferences;
- participation in workshops;
- assisting foreign customs authorities and educational institutions to develop study programmes in the field of customs in accordance with the standards of the European Union and the World Customs Organization;
- development of joint scientific research projects;
- reviewing PhD Theses for partner universities outside Latvia;
- delivering lectures in educational institutions in other countries;
- involvement of international guest lecturers and highly qualified specialists in the RTU study process;
- participation in the Erasmus+ programme by academic staff, students, administration;
- publishing the research results abroad;
- signing bilateral agreements with cooperation partners.

## **Examples of international cooperation**

### **International cooperation in the framework of the PICARD programme of the World Customs Organization**

The study programme "Administration of Customs and Taxes" was developed in cooperation with the World Customs Organization (WCO). In 2005, [a Memorandum of Understanding](#) was signed between the WCO and RTU International Business and Customs Institute on cooperation in the development and provision of world-class customs education and training, as well as research.

International Business and Customs Institute participated in the establishment of PICARD (Partnerships in Customs Academic Research and Development) programme in 2006. This programme was designed to promote research cooperation among universities and customs administrations across the world, as well as to increase professional qualification of customs administrations, ensuring training and professional advancement at the universities and training centres.

In 2008, in the framework of the PICARD programme, with the participation of RTU and other universities, the WCO PICARD International Standards for the Customs Profession were developed. The standards were approved by the 177 member states of the organization in 2009. These international standards are incorporated into the RTU professional Bachelor and Master study programmes "Administration of Customs and Taxes"; and in 2010 the World Customs Organization officially recognized RTU customs study programmes as meeting the PICARD International Standards for the Customs Profession.

PICARD Professional Standards were revised in 2019. WCO extended their thanks to Riga Technical University and several other universities around the world for their help and support in reviewing the PICARD Professional Standards (see Standard on 3 pp.) (<http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/capacity-building/activities-and-programmes/picard/professional-standards/omd-normes-prof-uk-basse-def.pdf?la=en>). PICARD Professional Standards for the customs profession are used all over the world, both in the development of higher education study programmes and organization of training in institutions related to border security. WCO has also developed WCO Recognition Guidelines for recognizing university study programmes.

Prof. A.V.Krastiņš is a WCO PICARD advisor and has been appointed by the WCO as an expert in the assessment of customs study programmes to receive the WCO PICARD Recognition. For example, in 2017 Prof. A.V.Krastiņš was appointed as one of the WCO experts for the recognition of customs study programme at the Shanghai Customs College, in 2018 - for the WCO recognition of customs

study programme at the Rotterdam School of Management, Erasmus University in the Netherlands ([Rotterdam School of Management, Erasmus University](#)).

Experts of the International Business and Customs Institute regularly participate in the meetings of the WCO Capacity Building Committee. Prof. A.V. Krastiņš, as an advisor to the WCO PICARD, participates in the meetings of the PICARD Advisory Group, where, for example, the agenda of the meetings on 26-28 February, 12-13 September 2018 included the revision of the WCO International Standards for the Customs Profession.

Representatives of the International Business and Customs Institute also regularly participate in PICARD scientific conferences. For example, from 9 to 11 October 2018, Head of the International Business and Customs Institute Aivars Vilnis Krastiņš, Assistant Professor Aivars Gulbis and Public Relations Manager Elīna Ludāne participated in the 13th Annual WCO PICARD Conference. The agenda of the conference included the revision of the international PICARD standards for the customs profession, topical issues in the areas of security, customs and customs education, recognition of customs study programmes, cooperation between the educational institutions that have received the WCO Recognition, etc.

Other universities participating in the WCO PICARD programme include Charles Sturt University (Australia), University of Munster (Germany), Rotterdam School of Management (Erasmus University) and Cross-border Research Association (Switzerland), among others. International Business and Customs Institute also cooperates with these universities in other formats. For example, representatives of these universities and organizations participated in the conference "Is Customs Ready for Tomorrow?" jointly organized by RTU International Business and Customs Institute and the State Revenue Service in November 2019 in Riga both by moderating the conference panel discussions and participating in the discussions as participants.

More about the WCO PICARD programme:  
[http://www.wcoomd.org/en/topics/capacity-building/activities-and-programmes/people-development/learning/development-programmes/cb\\_picard\\_overview.aspx](http://www.wcoomd.org/en/topics/capacity-building/activities-and-programmes/people-development/learning/development-programmes/cb_picard_overview.aspx)

### **International cooperation within INCU**

In 2006, RTU was also one of the founding universities of the International Network of Customs Universities (INCU). The INCU comprises most of the higher education institutions of the WCO member states and was established to ensure close cooperation between the world's national customs authorities and educational and research institutions (<https://incu.org>).

### **International cooperation in various European Commission's initiatives in the area of customs**

International Business and Customs Institute also participates in the European Commission initiatives on the future development of customs profession and education in Europe. For example, Assistant Professor of the International Business and Customs Institute Aldis Čevērs has been serving on the **EU Customs Certificate of Recognition Assessment Board** since 2019. The Board assesses university customs programmes in the European Union for the European Commission Recognition of Bachelor and Master programmes in customs as meeting the requirements of the European Union (EU) customs competences.

Normunds Rudzītis, Assistant Professor of professional study programmes at the International Business and Customs Institute, participates in the TAXUD (Directorate General for Taxation and Customs Union of the European Commission) research project on the Future of Customs in the European Union. The aim of the project is to gather/develop a knowledge base on the future of customs and development scenarios that could be used by policy makers and implementers to take



long-term decisions in the field of customs policy.

International Business and Customs Institute not only participates in the European Union's customs policy initiatives, but also ensures that its programmes comply with the European Commission standards. On 29 June 2021, Bachelor and Master study programmes "Administration of Customs and Taxes" of the International Business and Customs Institute received the EU Customs Certificate of Recognition for meeting the requirements of the EU Customs Competency Framework.

Further information on EC recognition:

- <https://sesmi.rtu.lv/2021/06/30/eiropas-komisija-atzist-rtu-muitas-izglitiba-novertejot-to-ka-vienu-no-labakajam-eiropas-savieniba/>
- [https://ec.europa.eu/taxation\\_customs/eu-recognition-state-art-customs-academic-programmes\\_en](https://ec.europa.eu/taxation_customs/eu-recognition-state-art-customs-academic-programmes_en)

Head of the Institute of Occupational Safety and Civil Defence, prof. Jānis Ieviņš has been a member of the ENETOSH (European Network for Education and Training in Occupational Safety and Health) Steering Committee since 2011. In 2013, he participated in the ENETOSH Steering Committee meeting in Helsinki, Finland, to develop the guidelines and work plan for the Section "Creating Safe and Healthy Workplaces and Training" of the 20th World Congress on Occupational Safety and Health. In 2015, as a member of the ENETOSH Steering Committee, he participated in the conference "International Conference on Safety and Health at Work", jointly organized by the Bulgarian Foundation for Safety and Health at Work and ENETOSH, held in Obzor, Bulgaria. Prof. Jānis Ieviņš, as the head of the study programmes "Occupational Safety" and "Safety Engineering", was able to improve these programmes, as well as to develop and update the courses related to occupational safety and health that are taught within these programmes.

### **International Business and Customs Institute supports the transfer of global customs education standards to other countries**

The International Business and Customs Institute assists in the development of customs education systems in other countries by supporting the transfer of global customs education standards to other countries of the world, such as the Central Asian countries (European Union Border Management Programme in Central Asia (BOMCA) project), Azerbaijan, Russia, Ukraine.

International Business and Customs Institute participated in the European Commission's Border Management Programme in Central Asia (BOMCA-9, <https://www.bomca-eu>) from 2015 to 2020. In the framework of the Component 1 of the BOMCA project, led by the RTU International Business and Customs Institute, more than 1400 participants from the five Central Asian countries - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - have taken part in the project activities - altogether 88 different national, regional and international events, including workshops, e-learning implementation, technical assistance missions, conferences, etc. The aim of the project activities was to familiarize the relevant authorities of the Central Asian countries with the EU practices in the areas of customs and border management, financial planning and control, and human resources. The project paid particular attention to the fight against corruption in the border security services, as well as to the establishment and improvement of the customs education system in the higher education institutions of these countries. Under the leadership of the Institute 40 different normative documents, including recommendations, strategic planning documents, etc. in the field of border management were developed.

After the completion of the BOMCA-9 project, the Department of Customs and Taxes of RTU International Business and Customs Institute got involved in the next phase of the project - BOMCA-10 as an associate partner.

## **Examples of transfer of global customs education standards to Central Asia and other countries**

RTU has cooperated with the representatives of the Central Asian institutions in the fields of customs education and border security bilaterally and in the framework of various projects. The aim of the cooperation is transfer of international educational standards and best practices to the educational institutions in the region.

For example, in the framework of the project BOMCA-9 experts of RTU International Business and Customs Institute assisted the Uzbekistan's Customs Institute to revise their curricula to meet the WCO international standards for customs profession. In 2022 RTU International Business and Customs Institute received a letter of appreciation from the Customs Institute of the State Customs Committee of Uzbekistan for its support and practical contribution to the development of Uzbekistan's customs study programmes and their recognition at the international level.

As part of BOMCA-9 Al-Farabi University, under the guidance of RTU International Business and Customs Institute, also revised its customs curricula in line with the WCO requirements and received WCO Recognition in March 2019.

Deans of higher education institutions, directors of training centres and heads of departments from Russia, Ukraine, Central Asian countries, etc. undertook practical placement at RTU Department of Customs and Taxes to learn from RTU experience in developing and improving customs study programmes and courses, organizing the study process, as well as RTU experience in developing the university cooperation with the customs authority and entrepreneurs in Latvia.

From 22 to 24 November 2016 the Head of the Kazakhstan Customs Training Centre and the Head of the Customs Department of Al-Farabi Kazakh National University visited RTU International Business and Customs Institute. The purpose of the visit was to exchange experience in customs education issues, to consult on the development and implementation of a common customs training system in five Central Asian countries. The representatives gave guest lectures in Riga, met with the management and faculty of RTU Department of Customs and Taxes, visited the SRS National Customs Board and customs control point, participated in round table discussions at the RTU Riga Business School, as well as took part in the opening of the distance learning project between the RTU International Business and Customs Institute and the Customs Institute of Uzbekistan. During the visit, RTU signed a cooperation agreement with Al-Farabi Kazakh National University.

From 24 to 30 November 2016 the Dean of the Faculty and the Head of the Department of Customs of the Narxoz University in Kazakhstan visited RTU Department of Customs and Taxes to learn about RTU experience in developing customs education.

On 29 June 2020 RTU FEEM International Business and Customs Institute organized a webinar for Uzbek border management authorities on the impact of the COVID-19 pandemic on strategic border management. During the webinar, senior officials from the Ministry of Health of the Republic of Latvia, the State Border Guard, the SRS National Customs Board and the Food and Veterinary Service presented measures to reduce the spread of COVID-19 in Latvia and EU Member States, as well as shared experience in implementing innovative solutions. Uzbekistan was represented at the webinar by officials from the State Border Guard authorities, the State Customs Committee, the State Veterinary Service and the State Plant Quarantine Inspectorate and the Customs Institute of the State Customs Committee. The event was organized in the framework of the European Union Border Management Project BOMCA-9 (Border Management Programme in Central Asia) and the German Agency for International Cooperation (The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)) programmes.

On 12-13 October 2022 in Astana, Kazakhstan, Normunds Rudzītis, Assistant Professor of the

International Business and Customs Institute participated in the Central Asia Trade Forum on Digitalization of Customs Services "Digitalization of Customs Services: Pathway to Paperless Trade", organized by the United States Agency for International Development (USAID). It brought together business and customs administration representatives from Central Asia, Azerbaijan, Georgia, Singapore, European Union countries and the United States. Normunds Rudzītis delivered a presentation "EU Experience on Anti-corruption".

Read more about the event at: <https://catradeforum.org/#forum>

Academy of the State Customs Committee of Azerbaijan (ASCCA) and the WCO Regional Training Centre in Baku have expressed interest in opportunities for cooperation with the International Business and Customs Institute.

On 17 March 2021 RTU met with representatives of the Academy of the State Customs Committee of Azerbaijan (ASCCA) on cooperation in the following areas: development of a joint study programme, opportunity for ASCCA students to participate in RTU online lectures, faculty exchange, guest lectures, remote practical placement opportunities, cooperation under Erasmus+, Jean Monnet programmes.

On 8 May 2020 the International Business and Customs Institute participated in a video conference on customs work and border management during the pandemic organized by the Academy of the State Customs Committee of Azerbaijan. The video conference was addressed by the Ambassador of Latvia to Azerbaijan Dainis Garančs, who gave a lecture "Customs and Border Management During a Pandemic: Challenges and Opportunities". Professor Aivars Vilnis Krastiņš, Head of the International Business and Customs Institute, Igors Tipāns, Vice-Rector for International Academic Cooperation and Studies, Ingrida Gulbe-Otaņķe, Deputy Director of the SRS National Customs Board and Vladimirs Zaguzovs, representative of the International Cooperation Administration of the State Border Guard also participated in the conference.

### **Examples of cooperation with universities, institutions and organizations to strengthen cooperation in the Baltic Sea Region**

The academic staff of the Institute of Occupational Safety and Civil Defence actively participate in international projects, including the "Needs-Based Education and Studies in Societal Security" (NEEDS) project, strengthening international cooperation in scientific and applied research in the Baltic Sea Region. The project partners include organizations such as the Council of the Baltic Sea States Secretariat (CBSS) (Sweden), Hamburg Fire and Rescue Services (HFRS) (Germany), LAUREA University of Applied Sciences (Finland), Main School of Fire Service (MSFS) (Poland), Liepāja Municipal Police / UBC Safe Cities Commission (Latvia), Swedish Defence University (SEDU) (Sweden) as well as the University of Tromsø, the Arctic University of Norway (UiT), website: <https://cbss.org/>. The project addresses the skills gap and mismatch between public safety education and knowledge needs in this field, as well as the lack of structured transnational cooperation and dialogue between higher education institutions, practitioners and experts on public safety issues. The international partnership of the NEEDS project allows the project to build on knowledge and understanding of different national contexts. It strengthens the project and allows for a pedagogical approach that takes into account international cooperation.

Several project partners have extensive experience in educating and training students in risk assessment and reduction, as well as risk and crisis management. These perspectives truly enrich the project activities. For example, in academic year 2021/2022, two students of the professional Bachelor study programme "Safety Engineering" had an undergraduate practical placement at the Swedish Defence University, where they not only conducted research as part of their Bachelor Paper, but also carried out research in the framework of the Erasmus+ NEEDS project, namely

developing case studies on the impact of pandemics on public security.

On 22 April 2022, the Institute of Occupational Safety and Civil Defence, in cooperation with the Baltic Sea Council, organized a conference "What is the New Normal in Societal Security?" in the framework of the Erasmus+ NEEDS project, attracting not only the Institute's students but also international students, lecturers and practitioners from other Baltic Sea Region countries.

The study field also actively cooperates with Estonian universities.

In 2015, a cooperation agreement was signed with the Estonian Academy of Security Sciences. Both universities have established successful and close cooperation. The Estonian Academy of Security Sciences provides education for customs and other law enforcement officers, as well as tax administrators in Estonia. Within the framework of the cooperation, several guest lectures, faculty exchanges, participation in conferences, joint participation in the CEPOL (European Union Agency for Law Enforcement Training) exchange programme, etc. have taken place.

From 17 to 21 September 2018 the Director of the Financial College of the Estonian Academy of Security Sciences and a lecturer of the college visited RTU International Business and Customs Institute in the framework of the CEPOL exchange programme. The aim of the programme is to support training of law enforcement officers and other officials of related fields of the EU Member States. The Estonian representatives met with the Dean of the FEEM Elīna Gaile-Sarkane, the Deputy Dean Inga Lapiņa, the Head of International Business and Customs Institute Aivars Vilnis Krastiņš, as well as the academic staff of the programme "Administration of Customs and Taxes". The Estonian representatives also visited the Ministry of Finance, the State Revenue Service, the Freeport of Riga, etc.

From 15 to 19 October 2018 the Associate Professor Māris Jurušs and Assistant Professor Aldis Čeveris participated in the CEPOL exchange programme and visited the Estonian Academy of Security Sciences. During the visit, on 16 October, Māris Jurušs gave two lectures on taxation and tax planning in Latvia and was also interviewed by the Estonian National Television. During the visit, the RTU academic staff got acquainted with the customs and tax study programme in Estonia and visited the Estonian Tax and Customs Board.

On 1-2 December 2021 the Head of the Department of Customs and Taxes, Professor Aivars Vilnis Krastiņš, and the Public Relations Manager Elīna Ludāne participated in the conference "30 Years of Safe Freedom" organized by the Estonian Academy of Security Sciences.

There is also active academic and scientific cooperation with the Department of Occupational Safety and Health at Tallinn University of Technology, School of Economics and Business Administration.

RTU Institute of Occupational Safety and Civil Defence in cooperation with Tallinn Environmental Health and Safety Institute and JSC Latvijas Finieris signed a cooperation agreement on the provision of practical placements, as well as scientific and research cooperation and measurements of electromagnetic field exposure levels at workplaces.

### **Cooperation with world-leading experts and organizations in such areas as dual-use goods control, supply chains, anti-smuggling, anti-corruption, etc.**

International Business and Customs Institute has participated in several other international projects, including cooperation with the US Department of Energy, in several projects on control of dual-use goods, anti-smuggling, etc.

The experts of the International Business and Customs Institute have participated in the UN Development programme in Georgia and in projects in Nepal, Uganda and Rwanda in cooperation

with the Dutch Government's Fiscal Policy Department (ABFD).

The academic staff of the International Business and Customs Institute participated in a project on developing corruption prevention measures in the border management authorities of Kyrgyzstan in cooperation with the Geneva Centre for Security Sector Governance.

RTU International Business and Customs Institute has also been cooperating for many years in the field of customs and supply chains with the Cross-border Research Association (CBRA), a Swiss-based research institute affiliated with the University of Lausanne. A Memorandum of Understanding between the two institutions was signed on 16 May 2016. CBRA specializes in various research projects in the field of supply chain security and trade facilitation and is a sought-after speaker at universities worldwide. RTU cooperates with CBRA in the WCO PICARD programme, participates in joint conferences and publications.

Normunds Rudzītis, RTU Assistant Professor together with the CBRA researchers co-authored a report "Improving Border Agency Cooperation between OIC Member States to Facilitate Trade" of the Standing Committee on Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC).

(<https://wpweb2-prod.rtu.lv/sesmi/wp-content/uploads/sites/9/2017/05/Improving-the-Border-Agency-Cooperation-Among-the-OIC-Member-States-for-Facilitating-Trade.pdf> )

In May 2017 RTU published the book "Supply Chain Security (SCS) Compendium: A Decade of Academic SCS Research", Riga, RTU Press, 2017.- 452 p by CBRA founder Dr. Juha Hintsa and other authors. The book was written after several years of cooperation with RTU Department of Customs and Taxes and Assistant Professor Normunds Rudzītis.

On 19 September and 3 October 2018, the 4th-year students of the Bachelor programme "Administration of Customs and Taxes" were given guest lectures "Threats and Risks of International Supply Chains" and "Solutions to Mitigate Risks of International Supply Chains of Goods. International Experience." The lectures were given by the experts of the Cross-border Research Association (CBRA): Dr. Juha Hintsa, Dr. Susana Wong Chan and Dr. Toni Männistö.

### **International cooperation in the field of taxation**

International Business and Customs Institute also participates in international projects in the field of taxation. For example, Associate Professor Māris Jurušs participates in the international project ProTax, which focuses on combating tax fraud. Its main objectives are to identify problems in combating tax fraud, analyze the situation in the EU, and develop solutions for future effective cooperation between authorities, thus enabling a more successful fight against tax fraud. ProTax members include academic institutions, public authorities and other social partners. On 21-22 November 2019, M. Jurušs attended the ProTax meeting in Brussels, where he delivered a progress report.

For international cooperation, see also the annexes on incoming and outgoing mobility of academic staff and the list of cooperation agreements:

1. sadarbības\_līgumu\_saraksts\_cooperation\_agreements\_list
2. ārvalstu\_studējošie\_mācībspēki\_students\_staff\_from\_abroad
3. studējošo\_izejošā\_ienākošā\_mobilitāte\_students\_outgoing\_incoming\_mobility
4. mācībspēki\_izejošā\_ienākošā\_mobilitāte\_staff\_outgoing\_incoming\_mobility

### **2.5.3. Specify the system or mechanisms, which are used to attract the students and the teaching staff from abroad. Provide the assessment of the incoming and outgoing mobility**

**of the teaching staff in the reporting period, the mobility dynamics, and the issues which the higher education institution/ college faces with regard to the mobility of the teaching staff.**

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

- the internal: management team; general staff, academic staff; existing students;
- 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, digital 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. In order to ensure a permanent presence and the provision of quality information about studies at RTU and the selection of students, RTU has opened its own information and study centres in specific countries.

Various virtual seminars are widely used to address potential students, with the participation of RTU ICFSD employees, existing delegated employees of students and study programme directors, who acquaint prospective students with RTU infrastructure, study opportunities and requirements for foreigners, study programme content, further study opportunities, as well as career opportunities after graduation.

ICFSD foreign student admission staff provides potential students with the opportunity to use online consultations to solve issues related to admission and study programme selection. Consultations are arranged by appointment, every week, for a period of two months before the end of the admission period.

Potential students who have provided their contact information to RTU in connection with the commencement of studies, but have not submitted their applications for studies, are regularly addressed at least once a month.

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.

RTU foreign student enrolment rates are summarized starting with academic year 2013/2014, indicating whether the student is pursuing undergraduate or graduate studies. The number implies only students enrolled in the first year.

The number of applications processed is much higher than the number of students enrolled. For example, in academic year 2014/2015, 38 applications were received from prospective students, while 20 students commenced their studies; 2015/2016, 26 applications were received from prospective students, while 11 students commenced their studies; however, in academic year 2016/2017, 26 applications were received, but 8 students were enrolled; in academic year

2017/2018, 28 applications were received, but 16 students were enrolled; in academic year 2018/2019, 17 applications were received, but 5 students were enrolled; in academic year 2019/2020, 36 applications were received, but 8 students were enrolled; in academic year 2020/2021, 10 applications were received, but 3 students were enrolled; in academic year 2021/2022, 16 applications were received, but 3 students were enrolled.

International exchanges between students and faculty are regular in the study field "Internal Security and Civil Protection". International mobility is linked to the achievement of the aims of the field of study and is in line with the activities described above.

International exchanges between students and faculty are regular in the study field "Internal Security and Civil Protection". International mobility is linked to the achievement of the aims of the field of study and is in line with the activities described above.

### International students

Incoming students are not divided at the Faculty by particular programmes. Starting from February 2018, every semester the FEEM Council approves a list of study courses "FEEM Erasmus+ Module" that is offered to incoming exchange students. 17 study courses from different departments of the faculty are included in the module.

During the reporting period, almost 2120 full-time international students participated in different courses of the programmes of the study field.

<b>Number of Students from Abroad in Different Study Courses from the Academic Year 2013/2014 to 2022/2023</b>		
<b>Nr.</b>	<b>Name and code of the study course</b>	<b>Number of students from abroad</b>
1.	IDA700 Basics of Labour Protection	<b>8</b>
2.	ICA301 Civil Defence	<b>1140</b>
3.	IVZ771 Work Environment and Ergonomics	<b>289</b>
4.	IMP201 Taxes and Duties	<b>372</b>
5.	IRE705 Public Sector Economics	<b>77</b>
6.	IMP304 Taxes and Duties	<b>64</b>
7.	IMP408 Legal Aspects of International Trade	<b>39</b>
8.	IMP314 Customs Legislation in Latvia and Abroad	<b>52</b>
9.	IMP320 Fundamentals of Customs Mission	<b>30</b>
10.	IMP426 Customs Organization and Control	<b>48</b>
	<b>Total</b>	<b>2119</b>

### International student exchange

Several study programmes are closely related to the requirements of the regulatory framework of the Republic of Latvia, which makes them very specific and complex in terms of organizing mobility experiences and studies; however, mobility opportunities for both academic staff and students are sought and found both through Erasmus+ and during the implementation of various projects.

32 students from different levels of study programmes have taken advantage of the Erasmus+

programme. Among the most popular universities where students have chosen to study are the University of Turku in Finland, Laurea University of Applied Sciences, University of Aveiro in Portugal, Swedish Defence University in Sweden and others. Two students have also studied outside the European Union at Handong Global University in South Korea. In the programme "Administration of Customs and Taxes", the difficulty in deciding to undertake Erasmus+ study mobility is that the specialization and programme "Administration of Customs and Taxes" is relatively unique and it is difficult to find equivalent study programmes and, consequently, course offerings in English elsewhere in Europe. Those students who participate in exchange programmes at foreign universities opt for more general courses, e.g., in management, finance, etc. However, at the Master level, there is too little time to spend half a year studying at another university, given that you have to undertake practical placement and develop and present the graduation paper.

In the framework of the Erasmus+ programme, students of 5 programmes have had practical placements at various companies and organizations abroad: Mainz, MLC Logistic GmbH (Germany), JSC Saku Metall (Estonia), Ltd. DM Globus Audit Services, Elansa Limited (Cyprus), as well as two 4th-year students of the study programme "Safety Engineering" had their undergraduate practical placements at the Swedish Defence University (Sweden).

Students have also taken the opportunity to take part in intensive training in their specialties. For example, within the ERASMUS+ programme in academic year 2021/2022, a 1st-year student of the study programme "Fire Safety and Civil Protection" and two 4th-year students of the study programme "Safety Engineering" participated in a five-day intensive training course at the Arctic University of Norway in cooperation with the NEEDS project. Within the same project, from 1 May 2022 to 7 May 2022, two 4th-year students of the professional Bachelor study programme "Safety Engineering", one 1st-year student of the First Cycle Professional Higher Education programme "Fire Safety and Civil Protection" and one 1st-year student of the professional Master study programme "Occupational Safety" participated in a 5-day intensive training course at Laurea University of Applied Sciences (Finland).

RTU has also provided education and training to international students in the framework of different other projects or bilateral cooperation.

For example, from 11 September 2022 to 17 September 2022, in the framework of the NEEDS project, an intensive training week took place at the RTU Conference and Sports Centre "Ronīši", which was attended by 18 students from the following countries: Latvia (Riga Technical University), Finland (Laurea University of Applied Sciences), Sweden (Swedish Defence University), Norway (Arctic University of Norway) and Poland (Main School of Fire Service). The intensive training process was coordinated by project partners from Latvia (Riga Technical University), Norway (Arctic University of Norway), Finland (Laurea University of Applied Sciences), Poland (Main School of Fire Service) and Sweden (Council of the Baltic Sea States), who gave lectures to the students.

Practitioners from Hamburg Fire and Rescue Service (Germany), Tallinn Municipal Police (Estonia), Lahti Municipal Police (Finland), State Fire and Rescue Service (Latvia) and Liepāja Municipal Police (Latvia) shared their practical experience and gave lectures at the event.

From 6 to 10 December 2017, students and academic staff from the Münster School of Business visited the International Business and Customs Institute (IBCI), where they participated in the International Tax Week. The programme included guest lectures on the tax system in Latvia and Germany, preventing financial crime, a joint seminar on international taxation, a visit to the RTU Design Factory and other activities.

(As part of the incoming mobility, 9 RTU mobility students from abroad participated in the courses of the study field: `studējošo_izejošā_ienākošā_mobilitāte_students_outgoing_incoming_mobility`).



## **Outgoing mobility of academic staff**

Representatives of the study field have given guest lectures, participated in various working groups, conferences, professional development training and other outgoing mobility activities, as well as held meetings with representatives of international and other organizations and institutions.

In total, there have been almost 100 Erasmus+ events and more than 100 different events not related to the Erasmus+ programme and funding.

The programme "Administration of Customs and Taxes" places a strong emphasis on the participation of experts and the development of customs studies at the international level. This includes participation in the World Customs Organization (WCO) PICARD programme (Partnerships in Customs Academic Research and Development), where RTU representatives regularly participate in WCO conferences and Advisory Group meetings, where, for example, international standards for the customs profession were developed and later revised in 2019 (RTU is one of the co-authors of the PICARD Professional Standards), a system for recognition of educational institutions in the field of customs was established.

Academic staff have also participated in the European Union's TAXUD initiatives in the field of customs education. For example, Aldis Čevers, the Assistant Professor of the International Business and Customs Institute is one of the experts of the EU Customs Certificate of Recognition initiative for academic customs study programmes (Bachelor/Master level). Normunds Rudzītis, Assistant Professor of the International Business and Customs Institute, participates in a research project on the future of customs in the EU "The Future of Customs in the EU 2040" organized by the European Commission.

Associate Professor Māris Jurušs participated in the World Health Organization Working Group as one of the national experts representing Latvia in the international project "Illicit Tobacco Trade in the European Union 2017-2019: Raising Awareness and Promoting Understanding of the Illicit Tobacco Trade among Academic Researchers in the European Union".

RTU International Business and Customs Institute academic staff actively participate in several border management projects around the world. All the projects include both incoming and outgoing faculty mobility. For example, from 2015 to 2020 the Institute was the leader of the 1st Component of the the BOMCA-9 (Border Management programme in Central Asia) project, which aimed at strengthening and developing the institutional capacity of border management authorities in Central Asia. The total funding of the BOMCA-9 project was EUR 6.6 million. In total, 88 activities were implemented under the Component 1 of the BOMCA 9th Phase, with participation of 1400 representatives of border management authorities and universities from the Central Asian countries, including 156 expert visits, 40 study visits resulting in developing recommendations and normative documents for improving performance of border management authorities in CA. Also, 46 incoming visits to Latvia of the staff of border management authorities from the Central Asian countries took place. They visited RTU, SRS, State Border Guard and the Food and Veterinary Service for training.

The involvement of academic staff in research and international cooperation has a positive impact on the study process and helps to improve its quality. The results obtained in scientific research are used to improve the content and teaching methodology of study courses. The knowledge, competences and experience of the academic staff acquired in the above-mentioned international projects are also used in specific study courses of the study field programmes, for example, it is planned that the fully digitized course "Public Safety" (developed within the NEEDS project) will be offered to students as an elective subject from September 2023.

### **Erasmus+ outgoing mobility for academic staff**

Academic staff and employees of the study field have participated in almost 100 different Erasmus+ exchange visits (training + lectures). Among the most important cooperation partners and universities where guest lectures or training took place are Vilnius Gediminas Technical University, Brno University of Technology, Tallinn University of Technology, Estonian Academy of Security Sciences, FH Münster: University of Applied Sciences.

(see annex: lzejošā\_mobilitāte\_Erasmus\_mācībspēki\_Outgoing\_Mobility\_Erasmus\_Staff)

### **Incoming mobility of academic staff**

In total, 5 full-time academic staff members from abroad were employed by the Faculty during the reporting period. Almost 50 academic staff members and experts from such universities and organizations as the Estonian Academy of Security Sciences, Cross-border Research Association (CBRA) in Switzerland, Al-Farabi Kazakh National University, Higher Military Customs Institute of Uzbekistan, D.A. Tsenov Academy of Economics in Bulgaria, Rochester Institute of Technology, Council of the Baltic Sea States, Hamburg Fire and Rescue Service, HFRS, Swedish Defense University and others, including Customs Training Centres in 5 Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan visited RTU in 2022 alone. (see annex: mācībspēki\_izejošā\_ienākošā\_mobilitāte\_staff\_outgoing\_incoming\_mobility).

### **International cooperation agreements**

In general, international cooperation is regulated by both the signed bilateral agreements and Erasmus+ agreements with various higher education institutions, but cooperation also takes place with various long-term cooperation partners from international organizations. In total, there are more than 60 signed agreements related to the study field (see annex: sadarbības\_līgumu\_saraksts\_cooperation\_agreements\_list).

### **Cooperation with Ukraine on customs education**

In June 2022, Professor Aivars Vilnis Krastiņš was awarded an Honorary Doctorate by the University of Customs and Finance (Dnipro) (Ukraine) for his service in the development of customs education in the member countries of the World Customs Organization and for his support to the development of customs education in Ukraine.

On 27 May 2022, Professor Aivars Vilnis Krastiņš participated in the discussion "Ukrainian Customs in War and Post-War Conditions" organized by the Ministry of Education and Science of Ukraine and the University. Representatives of the World Customs Organization, universities, customs and tax administrations of Ukraine and other countries participated in the discussions. The proposals made during the discussions were included in the recommendations to the Ukrainian state institutions, including the recommendation of Prof. A.V. Krastiņš, Director of the RTU International Business and Customs Institute to develop customs education programmes in Ukraine in accordance with the requirements of the World Customs Organization and the European Commission, which would ensure the international prestige of Ukrainian customs education and increase both the quality of customs training and the efficiency of customs work in the new conditions.

### **Cooperation with the USA in the field of fire safety and civil protection**

Since 2017, the Institute of Occupational Safety and Civil Defence has established a successful cooperation with Rochester Institute of Technology in the USA, inviting academic staff from the University as guest lecturers in the study programmes "Safety Engineering" and "Fire Safety and Civil Protection".

In 2017, a guest lecturer from the USA (Rochester Institute of Technology) was invited by RTU

Institute of Occupational Safety and Civil Defence, and on 7 May 2019, the guest lecturer organized workshops "Introduction to Risk Management and Applications of Risk Management" and "Applied Risk Analysis in Effective Fire Prevention & in Effective Firefighting" upon the invitation of the Institute. Also at the end of 2020, the guest lecturer from the USA (Rochester Institute of Technology) gave a lecture "Principles of Risk Management: Assessing Risk & Asking the Right". Also in the spring semester of 2022, the guest lecturer delivered presentation "Experiences & Intuitions in Effective Fire Prevention & in Effective Fire Fighting & Minimizing the Risk of Fires in the U.S."

### **Other examples of academic staff collaboration**

In academic year 2020/2021, lecturer Guna Bazone visited the Swedish Defence University for a study visit within the NEEDS project, where she improved her knowledge of occupational health and safety issues, and in academic year 2020/2021 she visited the Arctic University (Norway) as a lecturer within the same project. Also in academic year 2021/2022, within the NEEDS project activities, Guna Bazone lectured as an assistant professor both at Laurea University (Finland) and during the NEEDS intensive training week (11-17 September 2022) in Latvia.

In academic year 2021, the 3rd- students of the study programme "Safety Engineering" had the opportunity to attend the lecture "Innovative Industrial Waste Management in the Baltic Sea Region and its Impact on the Environment" by the Swedish CBSS (Council of the Baltic Sea States) guest lecturer.

On 11-15 April 2016, Professor J. Ieviņš and Assistant Professor J. Bērziņš went on a scientific cooperation visit to the Complutense University of Madrid (UCM) in Spain.

On 9-11 February 2017, research assistant I. Vilcāne participated in a field trip seminar at Tallinn University on joint research and a field trip practical seminar on monitoring of electromagnetic field emissions in populated areas.

In 2016, Professor J. Ieviņš visited Tallinn University of Technology as a reviewer of Viive Pille's PhD Thesis "Development of a Model for the Prevention of Work-Related Musculoskeletal Disorders in the Upper Extremities".

In April 2016, Professor V. Jemeljanovs visited the Main School of Service, Poland, where he exchanged experiences and opportunities for staff mobility within the study programmes "Fire Safety and Civil Protection", "Safety Engineering", involving also the staff of the Estonian Academy of Security Sciences.

From 20 to 21 March 2018 Assistant Professors Aivars Gulbis and Normunds Rudzītis from the International Business and Customs Institute participated in the 2nd Session of the WCO Moscow International Model, which took place at the Russian Customs Academy. During the visit, the Institute representatives gave guest lectures on corruption risks and their prevention, met with the students and faculty members, and participated in an exchange of experience on the organization of applied games. The training was organized by the Russian Customs Academy in cooperation with PICARD programme (Partnership in Customs Academic Research and Development) and INCU (International Network of Customs Universities).

On 30 September 2020, the Head of RTU FEEM International Business and Customs Institute, Professor Aivars Vilnis Krastiņš participated in the discussion "International Standards for Customs Administration Staff Training: Theory or Reality". It was organized by the Russian Presidential Academy of National Economy and Public Administration. Participants included customs experts, representatives of universities and the Asia-Pacific Regional Office of the World Customs Organization. The discussion focused on the role of standards in the customs profession in the new

economic situation, where the COVID-19 pandemic contributed to the increase in the amount of customs work and the growing importance of distance learning and remote working in all sectors.

## **2.6. Implementation of the Recommendations Received During the Previous Assessment Procedures**

### **2.6.1. Assessment of the fulfilment of the plan regarding the implementation of the recommendations provided by the experts during the previous accreditation of the study field, 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 field and the relevant study programmes.**

The study field "Internal Security and Civil Protection" was accredited by the decision No.101 of the Study Accreditation Commission on 5 June 2013 and the decision No.23.A of the Study Accreditation Commission on 25 August 2016.

(See Annexes: Accreditation licences No.24 and No.99 of the Study field "Internal Security and Civil Protection":

Stud.virz.akred.lapa\_nr.24\_Stud.\_field\_accred.\_licence\_no.24;  
Stud.virz.akred.lapa\_nr.99\_Study\_field\_accred.licence\_No.99)

In 2012 the experts' conclusion, with regard to all programmes in the study field "Civil and Military Defence", which are implemented in all higher education institutions of Latvia, only the programmes implemented at RTU were positively evaluated.

For example, the Joint Report of Experts about the All Study Programmes in the Field: Civil and Military Defence states, "Only International Business and Customs Institute of RTU has excellent performance in international research works. Moreover, the professors of the International Business and Customs Institute of RTU lead various international projects related with customs education development in the EU and globally, actually, being pioneers on this and setting tone for all EU."

(See Annexes: Joint Reports of Experts about the All Study Programmes in the Field of Civil and Military Defence and RTU specifically:

Expert\_report\_2012\_RTU\_ekspertu\_zinojums; Expert\_report\_all\_progr.\_2012\_ekspertu\_zinojums)

"In the most of the interviews also the graduates gave a very positive opinion about the study programmes. They are highly professional and very well prepared for work. Moreover, as several SPs are the only one of such kind in Latvia or even there is no analogue in the international education space in European Union (EU), therefore, the competitiveness of the graduates is very high. As example, can be mentioned the International Business and Customs Institute of RTU which has played important role of education of the customs staff after independence as well as during Latvia joining process in the EU. The qualification of the staffs (graduates) absolutely complies with the requirements of the EU about the customs and tax services."

".. the International Business and Customs Institute of the RTU influences the development of customs studies in the EU (not vice versa as it topically in Latvia). Other Institutions of Higher Educations should develop it as good practice, too." etc.

The experts also gave a high positive rating to all programmes in their report on RTU (Joint Report of Experts about the All Study Programmes of Riga Technical University in the Field: Civil and Military Defence”)

In their recommendations, experts specify the need to:

1. continue developing the SP (study programmes in the field: Civil and Military Defence) according to the international market tendencies;
2. focus on the courses which are important for businesses (logistics, transportation, marketing, accounting, tax compliance, IT systems for businesses, safety at work, etc.);
3. continue inviting more guest lectures, especially foreign experts;
4. continue investing into the development of the qualification of the academic staff and encourage them to participate more in foreign exchange programmes or international projects;
5. encourage students to take part in international exchange programmes;
6. develop more on-line e-courses.

All expert recommendations have been followed and implemented during the reporting period.

The study programmes of the study field have been developed in line with international market requirements. Necessary changes have been made to the study programmes as required by the revised WCO standards for customs officers (Operational Managers and Strategic Managers), EC requirements (EU Customs Competency Framework) and new Latvian standards for professions. Accreditation of study programmes by the WCO and the EC has been obtained.

Study programmes focus on related subjects, logistics, taxation, etc. The European Commission, assessing the overall relevance of RTU programmes, as well as the content of individual subjects, to EU customs competences, recognizes that RTU has one of the best customs study programmes in the EU, providing excellent and multifaceted customs competences. It also notes that international experts have assessed that the actual level of competences to be acquired in RTU programmes is even higher than the EC requirements. The courses offered by RTU in supply chain security, IT, management, business, etc. and their application in the field of customs are recognized as particular strengths of the study programmes.

See Annexes:

- 1) EC Recognition Decision for Bachelors`s and Master`s Programmes: EK\_atzīšanas\_lēmums\_bak\_EC Recognition Decision\_Bachelors in Admin. of Customs and Taxes\_Latvia; EK\_atzīšanas\_lēmums\_mag\_EC Recognition Decision\_Masters in Admin. of Customs and Taxes\_Latvia
- 2) Qualitative Assessment Details for Bachelor`s and Master`s Programmes: EK\_atbilstības\_analīze\_bak\_Qualitative Assessment Details\_Bachelors in Admin. of Customs and Taxes\_Latvia; EK\_atbilstības\_analīze\_mag\_Qualitative Assessment Details\_Masters in Admin. of Customs and Taxes\_Latvia
- 3) A list of EU Recognised programmes in 2021- EK\_atzītās\_progr\_2021 EU Recognised programmes.

The number of visiting professors, both from abroad and local highly qualified professionals, has increased significantly during the period under review. They have also been involved in the development of teaching and methodological materials. An example is the teaching tool published in 2017 by Dr. Juha Hintsa, based at the University of Lausanne, Switzerland (Dr. Juha Hintsa. Supply Chain Security (SCS) Compendium: A Decade of Academic SCS Research. HEC University of Lousanne, Switzerland & Riga technical University, Latvia. – Riga, RTU Press, 2017 – 452 p.)

The development of academic staff qualifications has also been improved. During the reporting period, three members of academic staff (M. Pētersone, M. Urbans, A. Čevērs) have defended their Doctoral Theses. All faculty members have completed at least 160 hours of RTU qualification improvement courses before re-election, some faculty members have completed practical placements at the SRS, various companies and organizations, including through special funding (ESF Specific Objective grants), faculty and staff have participated in international exchange programmes (e.g., ERASMUS, or through international projects such as BOMCA), etc.

There has also been an increase in the number of students participating in international exchange programmes, notably ERASMUS+ and summer schools. During the reporting period, 32 students participated in ERASMUS+ exchange programme. It should be noted that due to the specificity of the study programmes in the field of security and the limited availability of information, in particular on practical placements, student exchange opportunities are limited.

Particular attention is paid to the creation and development of e-environments and e-courses. They are used both for providing individual guest lectures from partner universities, including foreign ones, and as support for RTU students and especially for lectures for Central Asian universities and customs services (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan). Due to the introduction of COVID restrictions, virtually all courses today can be delivered remotely in the e-environment.

Therefore, we can note that **the recommendations made by the experts of the previous accreditation for the development of the study field have been fully fulfilled.**

Specific measures have been taken to implement the recommendations also in individual study programmes.

#### **2.6.2. Implementation of the recommendations given by the experts during the evaluation of the changes to the study programmes in the respective study field or licensed study programmes over the reporting period or recommendations received during the procedure for the inclusion of the study programme on the accreditation form of the study field (if applicable).**

In the study field "Internal Security and Civil Protection" during the reporting period, changes were made only in the professional master's study program "Customs and Tax Administration" and approved by decision No.23.A of the Study Accreditation Commission on 25 August 2016.

In the expert's conclusion, the changes were supported and positively evaluated. There were no additional recommendations.

# Annexes

I - Information on the Higher Education Institution/ College		
Information on the implementation of the study field in the branches of the higher education institution/ college (if applicable)		
List of the governing regulatory enactments and regulations of the higher education institution/ college	List of internal regulations.zip	Ieksejo normatīvo aktu saraksts.zip
The management structure of the higher education institution/ college	RTU_Management_Structure.pdf	RTU_Parvaldības_Struktūra.pdf
II - Description of the Study Field - 2.1. Management of the Study Field		
Plan for the development of the study field (if applicable)	Plan for the development of the study field.pdf	Attīstības plāns 2021. - 2026. gadam.pdf
The management structure of the study field	Study_Direction_Management_Structure.pdf	Studiju_virziena_parvaldības_struktūra.jpg
A document certifying that the higher education institution or college will provide students with opportunities to continue their education in another study programme or another higher education institution/ college (agreement with another accredited higher education institution or college) if the implementation of the study programme is terminated.	Līgums_Stud.turpināšana_Agreement_Transition.zip	Līgums_Stud.turpināšana_Agreement_Transition.zip
A document certifying that the higher education institution or college guarantees compensation for losses to students if the study programme is not accredited or the study programme license is revoked due to actions (actions or omissions) of the higher education institution or college and the student does not wish to continue studies in another study programme.	Confirmation - on compensation for losses.edoc	Apliecinājums - par zaudējumu kompensāciju.edoc
Standard sample of study agreement	Study_agreements.zip	Studiju_līgumi.zip
II - Description of the Study Field - 2.2. Efficiency of the Internal Quality Assurance System		
Analysis of the results of surveys of students, graduates and employers	Analysis of the results of surveys of students, graduates and employers.pdf	Studējošo_absolventu_un_darba_devēju_aptauju_rezultātu_analīze.pdf
II - Description of the Study Field - 2.3. Resources and Provision of the Study Field		
Basic information on the teaching staff involved in the implementation of the study field	Studiju_virziena_mācībspēki_Study field teaching staff __.xlsx	Studiju_virziena_mācībspēki_Study field teaching staff __.xlsx
Biographies of the teaching staff members (Curriculum Vitae in Europass format)	Academic_staff_CV_EN.zip	Mācībspēku_CV_LV.zip
A statement signed by the rector, director, head of the study programme or field that the knowledge of the state language of the teaching staff involved in the implementation of the study programmes within the study field complies with the regulations on the state language knowledge and state language proficiency test for professional and official duties.	Confirmation - knowledge of the state language.edoc	Apliecinājums - valsts valodas zināšanas.edoc
A statement of the higher education institution/ college on the respective foreign language skills of the teaching staff involved in the implementation of the study programme at least at B2 level according to the European Language Proficiency Assessment levels (level distribution is available on the website www.europass.lv, if the study programme or part thereof is implemented)	Confirmation - knowledge of the foreign language.edoc	Apliecinājums - svešvalodu prasme.edoc
II - Description of the Study Field - 2.4. Scientific Research and Artistic Creation		
Summary of quantitative data on scientific and/ or applied research and / or artistic creation activities corresponding to the study field in the reporting period.	Summary of quantitative data on scientific activities corresponding to the study field.pdf	Kvantitatīvo datu apkopojums par studiju virziena aktivitātēm.pdf
List of the publications, patents, and artistic creations of the teaching staff over the reporting period.	List of the publications, patents, and artistic creations of the teaching staff over the reporting period.pdf	Mācībspēku publikāciju, patentu, mākslinieciskās jaunrades darbu saraksts (1).pdf
II - Description of the Study Field - 2.5. Cooperation and Internationalisation		
List of cooperation agreements, including the agreements for providing internship	sadarbības_līgumu_saraksts_cooperation_agreements_list.pdf	sadarbības_līgumu_saraksts_cooperation_agreements_list.pdf
Statistical data on the teaching staff and the students from abroad	ārvalstu_studējošie_mācībspēki_students_staff_from_abroad.pdf	ārvalstu_studējošie_mācībspēki_students_staff_from_abroad.pdf
Statistical data on the incoming and outgoing mobility of students (by specifying the study programmes)	studējošo_izejošā_ienākošā_mobilitāte_students_outgoing_incoming_mobility.pdf	studējošo_izejošā_ienākošā_mobilitāte_students_outgoing_incoming_mobility.pdf
Statistical data on the incoming and outgoing mobility of the teaching staff	Mācībspēku_ienākošā_izejošā_mobilitāte_Incoming_Outgoing_Staff_Mobility.pdf	Mācībspēku_ienākošā_izejošā_mobilitāte_Incoming_Outgoing_Staff_Mobility.pdf
II - Description of the Study Field - 2.6. Implementation of the Recommendations Received During the Previous Assessment Procedures		
Report on the implementation of the recommendations received both in the previous accreditation and in the licensing and/ or change assessment procedures and/ or the procedures for the inclusion of the study programme on the accreditation form of the study field.	Report_on_the_Implementation_of_Recommendations.pdf	Rekomendāciju_izpildes_pārskats.pdf
An application for the evaluation of the study field signed with a secure electronic signature	01000-2.2.1-e_122.edoc	01000-2.2.1-e_122.edoc
III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme		
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (table) (if applicable)		
Statistics on the students in the reporting period		
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard		
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (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		
The 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 organisation of the internship of the students (if applicable)		
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		

Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		
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## Other annexes

Name of document	Document
WCO Professional Standards 2019	WCO Professional Standards 2019.pdf
EC Recognition Certificate Bachelors	EC Recognition Certificate Bachelors.pdf
EC Recognition Certificate Masters	EC Recognition Certificate Masters.pdf
WCO Certificate	WCO Certificate.pdf
RTU EC certificates for Bachelor`s and Master`s Programmes	Certificate_RTU_EC_bak_mag.pdf
RTU WCO certificates for Bachelor`s and Master`s Programmes	Certificate_RTU_WCO_bak_mag.pdf
Studiju virziena studiju programmām piejamie elektroniskie resursi	Studiju virziena studiju programmām piejamie elektroniskie resursi.pdf
Electronic resources for the programmes of the study field	Electronic resources for the programmes of the study field.pdf
Stud.virz.akred.lapa_nr.24_Stud._field_accred._licence_no.24	Stud.virz.akred.lapa_nr.24_Stud._field_accred._licence_no.24.pdf
Stud.virz.akred.lapa_nr.99_Study_field_accred.licence_No.99	Stud.virz.akred.lapa_nr.99_Study_field_accred.licence_No.99.pdf
Expert_report_all_progr._2012_ekspertu_ziņojum	Expert_report_all_progr._2012_ekspertu_ziņojums.pdf
EK_atzīšanas_lēmums_bak_EC Recognition Decision_Bachelors in Admin. of Customs and Taxes_Latvia	EK_atzīšanas_lēmums_bak_EC Recognition Decision_Bachelors in Admin. of Customs and Taxes_Latvia.pdf
EK_atzīšanas_lēmums_mag_EC Recognition Decision_Masters in Admin. of Customs and Taxes_Latvia	EK_atzīšanas_lēmums_mag_EC Recognition Decision_Masters in Admin. of Customs and Taxes_Latvia.pdf
Expert_report_2012_RTU_ekspertu_ziņojums	Expert_report_2012_RTU_ekspertu_ziņojums.pdf
EK_atzītās_progr_2021 EU Recognised programmes	EK_atzītās_progr_2021 EU Recognised programmes.pdf
EK_atbilstības_analīze_bak_Qualitative Assessment Details_Bachelors in Admin. of Customs and Taxes_Latvia	EK_atbilstības_analīze_bak_Qualitative Assessment Details_Bachelors in Admin. of Customs and Taxes_Latvia.pdf
EK_atbilstības_analīze_mag_Qualitative Assessment Details_Masters in Admin. of Customs and Taxes_Latvia	EK_atbilstības_analīze_mag_Qualitative Assessment Details_Masters in Admin. of Customs and Taxes_Latvia.pdf
Studiju virziena „Iekšējā drošība un civilā aizsardzība” komisijas sastāvs	Studiju virziena „Iekšējā drošība un civilā aizsardzība” komisijas sastāvs.pdf
Studiju programmu pašnovērtējuma darba grupa	Studiju programmu pašnovērtējuma darba grupa_ok.pdf
Piemērus sadarbībai ar RTU Sabiedrisko attiecību nodaļu _ Examples of RTU SESMI cooperation with RTU Department of Public Affairs	Piemērus sadarbībai ar RTU Sabiedrisko attiecību nodaļu _ Examples of RTU SESMI cooperation with RTU Department of Public Affairs.pdf
Finansējums pa izmaksu pozīcijām laika periodā no 2013.-2022.gadam/Funding by Positions by the period from 2013-2022	Finansējums pa izmaksu pozīcijām laika periodā no 2013.-2022.gadam_Funding by Positions by the period from 2013-2022.pdf
Muitas un nodokļu administrēšana ekspertes slēdziens	Muitas un nodokļu administrēšana.PDF
RTU IT sistemu saskarnes.zip	RTU IT sistemu saskarnes.zip
Screenshots of RTU IT systems.zip	Screenshots of RTU IT systems.zip
Minimālais studējošo skaits, lai nodrošinātu studiju programmas rentabilitāti	Par_minimālo_studējošo_skaitu_studiju_programmās.pdf
Minimum number of students to ensure the cost-effectiveness of the study program	On_minimal_number_of_students_in_study_programmes.pdf
Elektronisko resursu lietošanas statistika	Elektronisko resursu lietošanas statistika.pdf
Electronic resource usage statistics	Electronic resource usage statistics.pdf
Finansējuma sadalījums starp izmaksu pozīcijām/ Breakdown of funding between cost items	Finansējuma_sadalījums_starp_izmaksu_pozīcijām_Breakdown_of_funding_between_cost_items.pdf

# Safety Engineering (42862)

Study field	<i>Internal Security and Civil Protection</i>
ProcedureStudyProgram.Name	<i>Safety Engineering</i>
Education classification code	<i>42862</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Māris</i>
Surname of the study programme director	<i>Ziemelis</i>
E-mail of the study programme director	<i>maris.ziemelis_1@rtu.lv</i>
Title of the study programme director	<i>Doktors</i>
Phone of the study programme director	<i>+371 29178601</i>
Goal of the study programme	<i>The aim of the study programme is to train labour protection engineers who can also perform the functions of fire safety and civil protection specialists, to develop students' understanding of professional ethics and the principles of good practice in labour protection, as well as to form the basis for further studies to acquire a higher level of knowledge and competence.</i>
Tasks of the study programme	<p><i>General aims of the study programme:</i></p> <ul style="list-style-type: none"> <li><i>- to provide a competitive education in security engineering that meets the bachelor's study level and international standards, and to prepare students for practical work;</i></li> <li><i>- to provide students with comprehensive knowledge, build skills and develop abilities in accordance with the requirements of the labour market for a security engineer, in accordance with the requirements of regulatory enactments for a specialist in labour, fire safety and civil protection;</i></li> <li><i>- to stimulate students' interest in further education and development, and in supplementing their professional knowledge;</i></li> <li><i>- to ensure the development and changes of the study programme content, study process and scientific research work in accordance with the development of the field and international practice;</i></li> <li><i>- to stimulate students' interest in the national processes in the field of technogenic environmental safety, to stimulate students' development into positive, responsible and capable individuals who can act independently and take decisions independently;</i></li> <li><i>- to promote interaction between academic staff and students in carrying out scientific research work and in the practical application of the results obtained;</i></li> <li><i>- to develop international exchanges of academic staff and students and participation in educational and scientific projects.</i></li> </ul>

Results of the study programme	<p><i>Graduate of the study programme is:</i></p> <ul style="list-style-type: none"> <li><i>-able to create, implement and provide a comprehensive labour protection management system, cooperate with state administrative institutions, as well as plan and implement the necessary briefings and training in the field of labour protection, ensure the conduct of mandatory health examinations, management of occupational diseases and investigation of accidents at work in accordance with the requirements of regulatory acts;</i></li> <li><i>- able to assess the risk factors of the work environment by choosing and applying various work environment risk assessment methods and calculations, as well as provide proposals for engineering safety solutions by performing appropriate calculations, develop and organise measures to prevent or reduce work environment risks to an acceptable level, as well as conduct briefings and training of employees on the impact of risk factors of the work environment and protection against them;</i></li> <li><i>- able to participate in the transformation of the work environment, in the process of introducing new work equipment and new technologies, evaluating the compliance of the equipment used by the company with standards, ensuring safety monitoring of dangerous equipment, as well as determining safety devices and technologies, and conducting employee training;</i></li> <li><i>- able to participate in the planning and implementation of fire safety, civil defence and disaster management solutions, ensure the necessary measures in crisis communication, ensure the availability and implementation of first aid, as well as participate in measures to assess and mitigate threats to the surrounding environment;</i></li> <li><i>- able to constantly improve professional qualifications and knowledge, follow labour protection and engineering current events, plan and organise labour protection measures, use appropriate information and communication technologies, as well as develop reports, write publications and prepare presentations on innovations in the industry, create social dialogue in society, participate in building the company's reputation, communicate in the national language (C2 level) and in one or more foreign languages.</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>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 safety engineering</i>
Qualification to be obtained (in english)	<i>Occupational safety engineer</i>

### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### **3.1. Indicators Describing the Study Programme**

**3.1.1. Description and analysis of changes in the parameters of the study programme made since the issuance of the previous accreditation form of the study field or issuance of the study programme license, if the study programme is not included on the accreditation form of the study field, including changes planned within the evaluation procedure of the study field evaluation procedure.**

In accordance with the procedure set out in Article 10 of the Cabinet of Ministers Regulation No.633 "Procedure for Development of Occupational Standard, Professional Qualification Requirements (if no occupational standard is approved for an occupation) and Sectoral Qualification Framework", in 2022 the professional standard was updated and the new professional standard "Occupational Safety Engineer" was agreed at the meeting of the Tripartite Cooperation Sub-Council for Professional Education and Employment held on 8 June 2022.

In 2022, changes have been made to the parameters of the study programme in terms of the qualifications to be awarded. On 13 December 2022, by the decision of the Council of RTU IEVF (Minutes No 115 (22000-1.1/20)), it was decided to change the professional qualification to be obtained in the professional bachelor study programme "Safety Engineering" from "Chief Specialist in Occupational Safety" to "Occupational Safety Engineer". The requirements for the occupational qualification of occupational safety engineer were agreed at the meeting of the Tripartite Cooperation Sub-Council for Professional Education and Employment on 8 June 2022 (Minutes No 3), corresponding to the sixth level of the Latvian Qualifications Framework (LQF 6).

On 16 October 2023, by the decision of the Council of RTU IEVF (Minutes No 9 (22000-1.1/17)), it was decided to approve associate professor Māris Ziemelis as director of the professional bachelor study programme.

**3.1.2. Analysis and assessment of the study programme compliance with the study field. Analysis of the interrelation between the code of the study programme, the degree, professional qualification/professional qualification requirements or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements. Description of the duration and scope of the implementation of the study programme (including different options of the study programme implementation) and evaluation of its usefulness.**

The Professional Bachelor's study programme "Safety Engineering" corresponds to the study field "Internal security and civil protection". The courses cover areas such as occupational health and safety, human health at work, fire safety and civil protection. The programme has interdisciplinary components. According to the classification of education (Cabinet of Ministers of the Republic of Latvia Regulations No.322, 2017) the study programme is in the thematic area of Civil and Military Protection Services - Occupational health and safety (code 862), (ISCED-2013 classification: 1022 Occupational health and safety).

The aim of the study programme is to provide a systematic and coherent education in the fields of

internal security and civil protection. The objectives of the study programme "Safety engineering" are subordinate to the objectives of the field of study, forming a coherent framework while reflecting the specificities of each study programme.

Graduates of the Professional Bachelor's study programme "Safety Engineering" are awarded the professional qualification "Occupational Safety Engineer" (professional code 2149 35 ) and the Bachelor's degree in occupational safety. The programme has a nominal duration of 4 years and a volume of 160 CP (240 ECTS).

Students are enrolled in this programme on the basis of the results of the centralised secondary school examinations. There are no specific entry requirements for the programme.

The aim of the Professional Bachelor study programme "Safety Engineering" is to train occupational safety engineers who can also perform the functions of fire safety and civil protection specialists, to develop students' understanding of professional ethics and the principles of good practice in occupational safety, as well as to form the basis for further studies to acquire a higher level of knowledge and competence.

In line with the aim of the study programme, the following objectives are set:

- to provide a competitive education in Safety Engineering that meets the professional bachelor's study level and international standards, and to prepare students for practical work;
- to provide students with comprehensive knowledge, build skills and develop abilities in accordance with the requirements of the labour market for a occupational safety engineer, in accordance with the requirements of regulatory enactments for a specialist in occupational safety, fire safety and civil protection;
- to stimulate students' interest in further education and development, and in supplementing their professional knowledge;
- to ensure the development and changes of the study programme content, study process and scientific research work in accordance with the development of the field and international practice;
- to stimulate students' interest in the national processes in the field of technogenic environmental safety, to stimulate students' development into positive, responsible and capable individuals who can act independently and take decisions independently;
- to promote interaction between academic staff and students in carrying out scientific research work and in the practical application of the results obtained;
- to develop international exchanges of academic staff and students and participation in educational and scientific projects.

The study programme is completed by a state examination, which includes the elaboration and public defence of a bachelor thesis at an open meeting of the State Examination Committee (SEC). The Bachelor thesis can only be defended if the student's knowledge and skills in the theoretical and specialised areas of the field have been successfully assessed. The SEC shall be composed of at least five members. The head of the Commission and at least half of its members shall be representatives of professional organisations or employers in the sector. The SEC collectively assesses students' knowledge, skills and competence on a 10-point scale. The Professional Bachelor's study programme "Safety Engineering" leads to a Bachelor's degree in occupational safety and a qualification of occupational safety engineer, which certifies that the knowledge and competences required for occupational safety engineers are acquired, such as: ability to establish, implement and maintain a comprehensive occupational safety management system in accordance with the requirements of the regulatory enactments, to cooperate with state regulatory authorities,

and to plan and implement the necessary instruction and training in occupational safety; ability to ensure that compulsory health examinations, occupational disease case management and occupational accident investigation are carried out in accordance with regulatory enactments; ability to assess risk factors in the working environment by selecting and applying various risk assessment methods and calculations, and to propose engineering safety solutions by carrying out appropriate calculations; the ability to design and organize measures to prevent or reduce risks in the working environment to an acceptable level and to instruct and train employees in the effects of and protection against risk factors in the working environment; the ability to participate in the redesign of the working environment, the introduction of new work equipment and new technologies, the assessment of the conformity of the equipment used by the undertaking to standards, the safety monitoring of hazardous equipment, the identification of safety devices and technologies, and the training of employees; the ability to participate in the planning and implementation of fire safety, civil protection and disaster management solutions, to ensure the necessary crisis communication measures, to ensure the availability and implementation of first aid, and to participate in the assessment and mitigation of environmental hazards; the ability to continuously improve professional qualifications and knowledge, to keep abreast of the latest developments in occupational health and safety and engineering, taking into account the requirements of employment relations, occupational safety, environmental protection and civil protection; the ability to plan and organize occupational safety measures, to use appropriate information and communication technologies, to draft reports, write publications and prepare presentations on industry innovations; the ability to work individually and in a team, to create social dialogue in society, to contribute to the company's reputation, to act ethically and responsibly within one's area of responsibility.

The Professional Bachelor's study programme "Safety Engineering" has defined 5 achievable study outcomes, which correspond to the job duties, tasks and competencies of an occupational safety engineer as defined in the professional standard "Occupational Safety Engineer". In turn, the objectives and deliverables of the study programme, as set out in the course descriptions, are closely linked to the objectives and deliverables of the overall programme, and the course content is subordinated to the achievement of the study programme deliverables (see Annex 8).

The analysis of the course descriptions of the study programme shows that their outcomes ensure the achievement of the study programme outcomes. Each course of study includes knowledge and tasks that enable students to achieve the professional competencies and knowledge required by the professional standard, and develop their research skills, debating, critical thinking and analysis competencies.

Every year, a course content audit is carried out to monitor and update course content, teaching methods and learning outcomes.

Analysing compliance with the Cabinet of Ministers Regulations No.305 „Regulations on the state standard of professional higher education“ (see Annex 6), it can be concluded that:

- The objectives of the study programme are in line with the requirements set out in the national education standard;
- The scope of the study programme and its structural distribution is in line with the national education standards.
- The content of the study programme is in line with the requirements set out in the national education standard; The main parts of the programme are study courses, an internship outside the educational institution and a state examination - the Bachelor's thesis;
- The principles of programme assessment are in line with the national education standards;
- Positive achievements are summed up;

- Assessment is compulsory at the end of each course;
- A summative assessment made up of several types of knowledge tests;
- Openness and clarity of requirements - the examination requirements are available to all interested persons at the study programme administration or teaching staff, are explained at the beginning of the study course (first lesson), and are placed in the ORTUS e-learning system together with the study course description;
- Variety of forms of assessment - independent work, control work, seminars, lectures, examinations, defence of internship work, defence of Bachelor's thesis, etc.

The content and scope of the examinations shall be appropriate to the content of the course description and to the skills and knowledge requirements of the professional qualification. All conditions are described in the course description for each course.

### **3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.**

The Labour Protection Law (in force since 01.01.2002) requires employers to set up an occupational safety system and to take measures to protect workers, such as training, risk assessment and preventive measures. The employer is responsible for the health and safety of employees at work, according to the provisions of the Labour Protection Law, but in order to ensure the necessary quality, an occupational health and safety specialist or a competent authority is hired.

According to Paragraph 5.1 of the Cabinet of Ministers Regulation No 99 "Regulations on types of commercial activity in which the employer involves a competent authority" - if there are from 6 to 10 employees in an undertaking, the employer is allowed to not involve a competent authority, provided that it ensures that 1) a labour protection system has been established and is operating at the undertaking, 2) internal supervision of the work environment and risk assessment at the undertaking is performed by a labour protection specialist whose knowledge conforms to one of the following requirements:

- he or she has acquired higher vocational education in labour protection;
- he or she has acquired higher education in natural sciences, engineering, the field of health protection or in law and he or she has work experience of at least five years in the relevant profession or labour protection, and also he or she has acquired the basic knowledge education programme on labour protection in the amount of 160 hours;
- he or she has acquired the basic knowledge education programme on labour protection and the specialised knowledge education programme in the field of labour protection in relation to the relevant type of commercial activities.

Paragraph 5.2 of the above Regulation states - if there are 11 or more employees in an undertaking, the employer is allowed to not involve a competent authority, provided that it ensures the fulfilment of the following requirements:

- a labour protection system has been established and is operating at the undertaking;
- internal supervision of the work environment and risk assessment at the undertaking is performed by a labour protection specialist who has received higher vocational education in labour protection.

Consequently, in accordance with the requirements of the laws and regulations of the Republic of

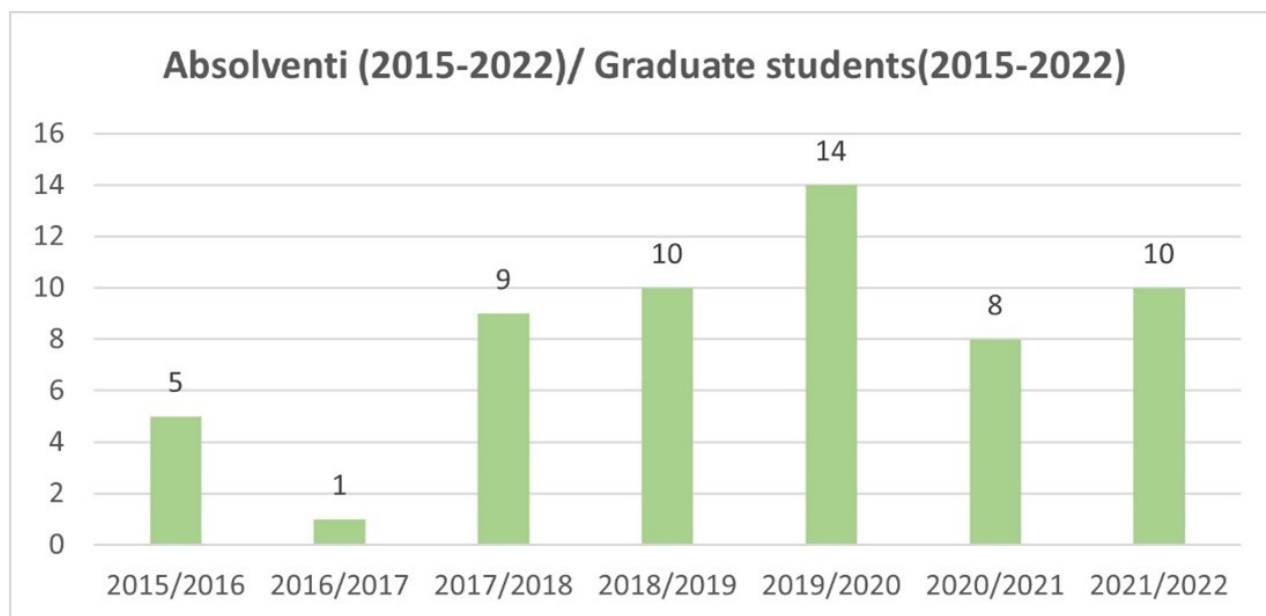


Latvia, all companies need an occupational health and safety officer. Graduates of the study programme "Safety Engineering" are also awarded a 160-hour certificate in fire safety, so that graduates the study programme can perform not only the duties of an occupational safety officer but also be responsible for fire safety in accordance with the "Fire Safety and Fire Fighting Law" (in force from 01.01.2003).

So far, only a few similar study programmes have been implemented in Latvia, which generally has a positive impact on the safety of the technogenic environment, but does not provide a comprehensive view of this aspect and the ability to control the impact of production on the surrounding working environment as a whole, nor do they ensure sustainable and comprehensive monitoring of safety and the quality of life and health of human resources. The increasing level of integration of production technology leads to the need for a comprehensive assessment of the safety of the technogenic environment. Whereas occupational safety, fire safety and civil protection were previously considered as relatively separate disciplines, technogenic integration - the automation of production processes, combining successive, different technologies (with different degrees of hazard and different impacts on human health, life and well-being) into a single system - necessitates the integration of occupational safety and management education disciplines. The study programme is delivered through a variety of teaching methods: lectures, practical classes, coursework and internships. During the studies, students acquire in-depth knowledge of the basic principles of complex assessment of the technogenic working environment, and methods of solving complex problems of the working environment.

The content of the study programme is designed in accordance with the professional standard "Occupational Safety Engineer" (professional code - 2149 35) and fulfilling its requirements. The assessment of the relevance of the study programme to the professional standard is given in Annex 7. It can be seen that for each level of knowledge defined in the occupational standards (concept, understanding or application), courses have been designed with appropriate content and topics. Therefore, it can be concluded that the Professional Bachelor's study programme "Safety Engineering" meets the requirements of the professional standard.

As this study programme matriculates students after general secondary education, this means that students usually have no prior knowledge or work experience in the sector. The study programme is designed to train occupational safety engineers for companies in various sectors, as well as for public institutions. The studies include the acquisition of sector-specific knowledge on occupational safety, regulatory enactments governing the field, internal monitoring of the working environment, assessment and management of risk factors in the working environment, as well as knowledge on civil protection and fire safety, etc. In addition to theoretical knowledge, there will be practical training in its application, as well as internships in the labour protection departments of companies or public institutions. According to the regulatory enactments, any company or institution must have an occupational safety system, which includes a coherent and comprehensive health and safety management system, and must take the necessary measures to ensure safe and secure working conditions. Therefore, the study programme prepares specialists important for the national economy, and the acquired knowledge also allows one to perform the duties of a fire safety and civil protection specialist. Establishing a health and safety system helps companies and institutions to ensure the safety and health of workers at work through a range of preventive, economic, social, technical and organisational measures, as well as to create a safe and healthy working environment by preventing accidents at work and occupational diseases, thereby creating value for society as a whole.



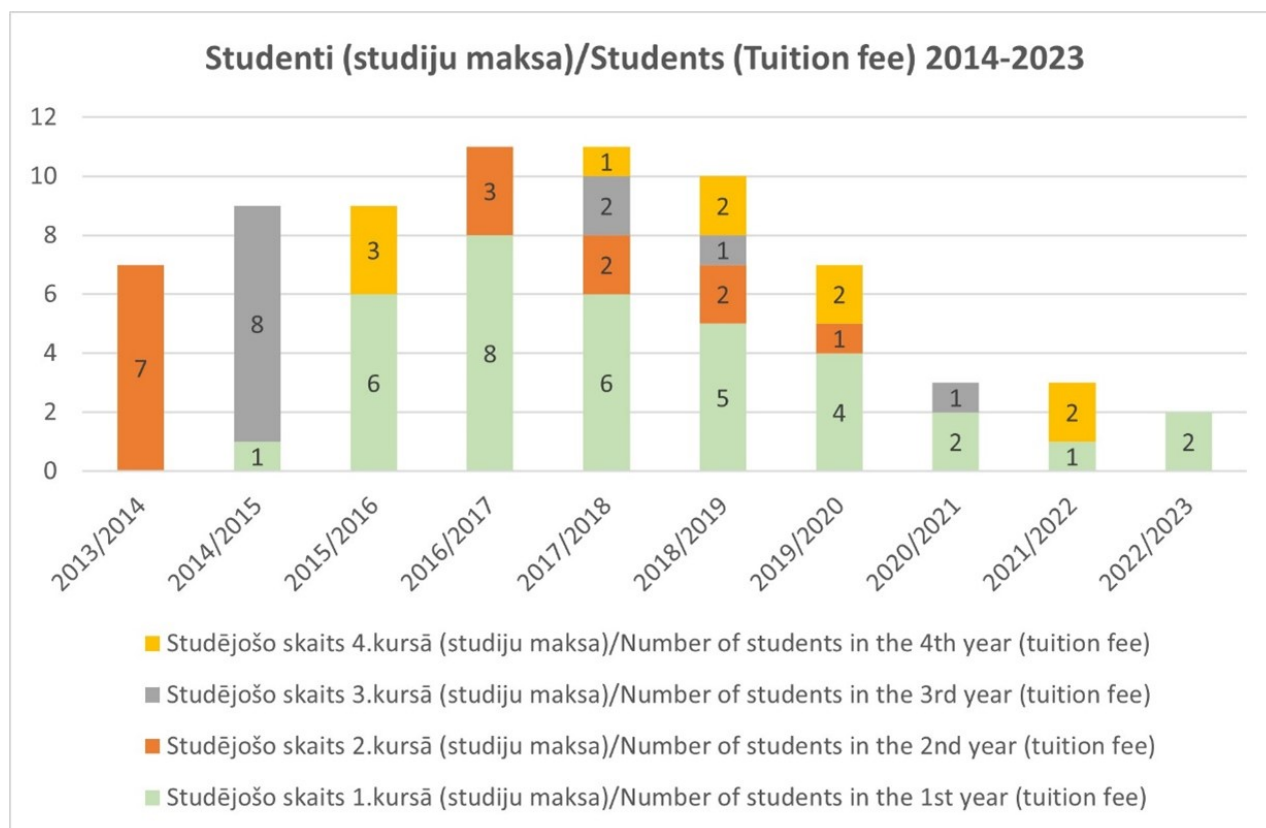
Looking at the graduate statistics, the highest number of graduates was in the 2019/2020 academic year (14 graduates) and the lowest in the 2016/2017 academic year (1 graduates). The low number of graduates in the 2016/2017 academic year is due to the fact that admission for this year's graduates took place in the 2013/2014 academic year, but no students were admitted, resulting in only 1 student graduating in the 2016/2017 academic year from the 2012/2013 academic year intake who had taken academic leave and graduated in the 2016/2017 academic year. As the programme was launched in the 2011/2012 academic year as a fee-only programme, the number of students enrolled in the first years is small, but by the 2015/2016 academic year there are no graduates at all. However, budget places were allocated in the academic year 2013/2014 and the number of students enrolled in the programme has increased in subsequent years, which is also reflected in the graduation statistics in the following years.

A total of 57 students graduated in the reporting period. The low number of graduates in the reporting period is explained by the fact that the first admission to the study programme took place only from the academic year 2011/2012 and the study duration is 4 years, so the first graduates were only from the academic year 2016/2017. The statistics show an increase in the number of graduates, which shows that the programme is in demand and promising, as graduates can work as senior occupational protection specialists (from 8 June 2022, due to changes in the professional standard, as occupational safety engineers) in companies and institutions regardless of ownership, provide services as competent specialists, and can be employed as state labour inspectors in the State Labour Inspectorate.

#### **3.1.4. 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 into different study forms, types, and languages.**

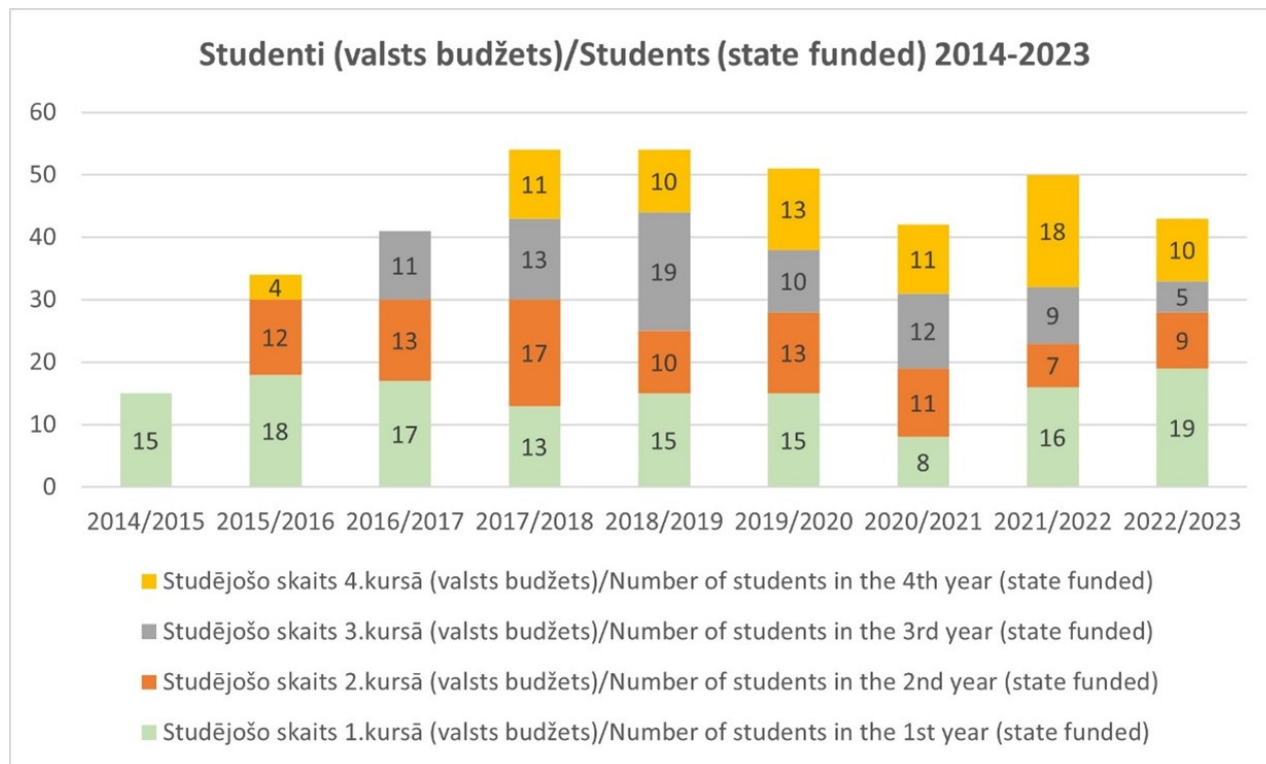
The Professional Bachelor's study programme "Safety Engineering" is implemented as a full-time, in-presence study programme in Latvian only, with both public and private funding.

The number of students studying on personal funds is relatively small (see figure below).



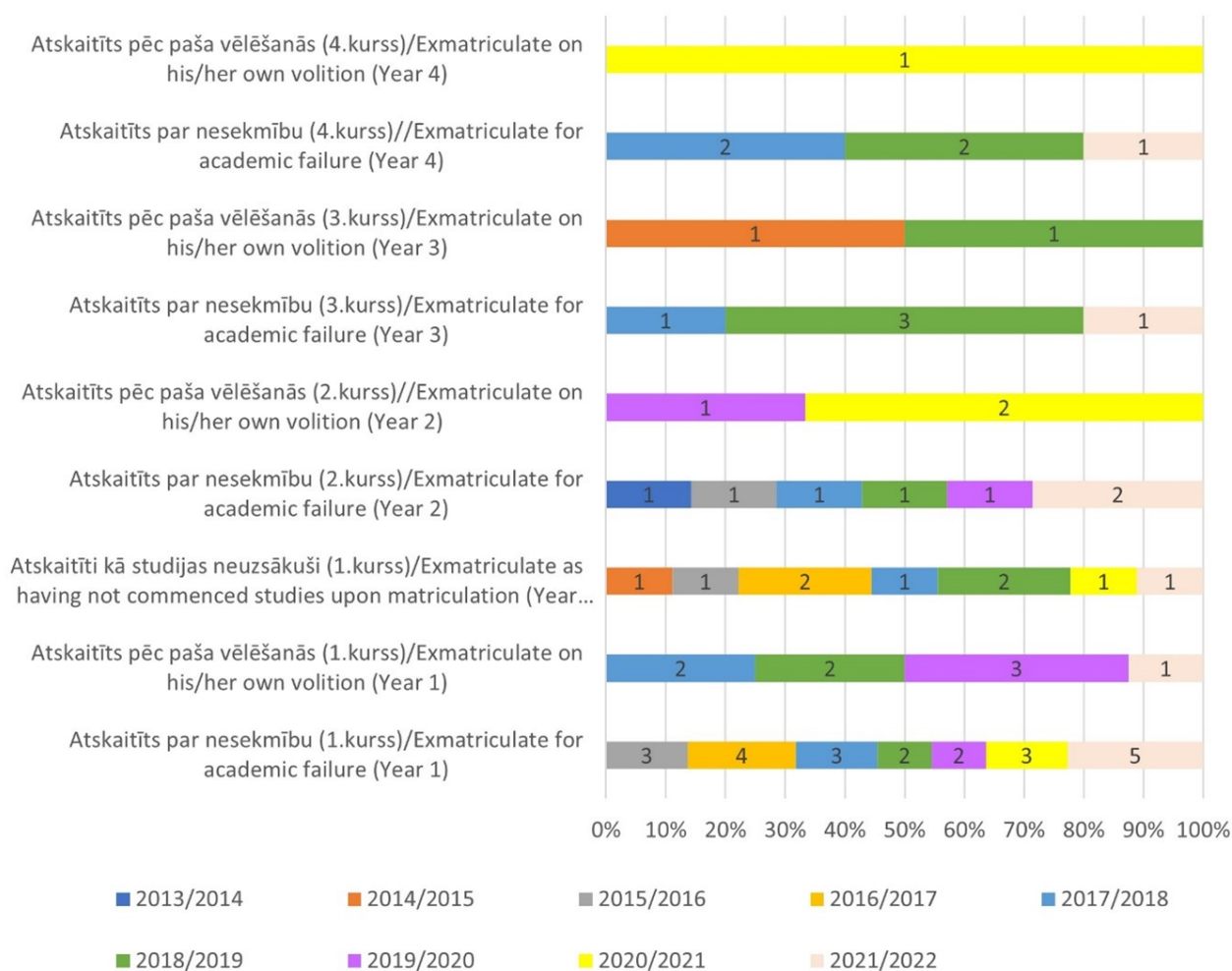
The highest number of students in the 1st year studying at personal expense was in the academic year 2016/2017 - 8 students, and the lowest in the academic year 2021/2022 - 1 student. This is due to the increase in tuition fees in the current academic year, as well as the decrease in students' ability to pay due to the pandemic. The highest number of students in the 2nd year of study studying for personal funds was in the academic year 2013/2014 (7 students), when there were no budget places in this study programme and students could study only with personal funds. However, in the academic years 2014/2015, 2015/2016, 2020/2021, 2021/2022 and 2022/2023, there were no 2nd year students studying for personal funds. The largest number of students in the 3rd year studied for personal funds in the academic year 2014/2015 (8 students), while in the academic years 2015/2016, 2016/2017, 2019/2020, 2021/2022 and 2022/2023 there were no students studying for personal funds at all. The highest number of students in the 4th year of study was in the academic year 2015/2016 (3 students) and the lowest in the academic year 2017/2018 (1 student). In the other years, no one studied for personal funds in the 4th year.

The number of students financed by the state budget is shown in the figure below.



Analysing the dynamics of the number of students, it can be concluded that the highest number of students on state funding in the 1st year was in the academic year 2022/2023 - 19 students. This is due to the increase in the number of budget places. The lowest number of students in the 1st year with state funding is in the 2020/2021 academic year - 8 students. This is due to the low number of budget places allocated in this academic year. The highest number of students enrolled in the 2nd year of study on state funding was in the 2017/2018 academic year (17 students), and the lowest - in the 2021/2022 academic year (7 students). The highest number of students studying in the 3rd year of study at state expense in the 2018/2019 academic year (19 students), and the lowest - in the 2021/2022 academic year (9 students). The highest number of students studying in the 3rd year of study at state expense in the 2021/2022 academic year (18 students), and the lowest - in the 2016/2017 academic year (4 students).

### Studējošo atbirums studiju programmā "Drošības inženierija" (2013-2022)/Students dropout in the study program "Safety engineering" (2013-2022)



Analysing the reasons for dropout, it can be concluded that during the reporting period, the highest proportion (14.66%) of students in the first year were dropped for academic failure and 5.33% were dropped voluntarily, while 6% were dropped for not having started their studies. The main reasons for academic failure in the 1st year are that students have poor prior knowledge of science subjects such as chemistry, physics and mathematics. There are various personal reasons for voluntary dropout. In the 2nd year, the highest dropout rate in the reporting period was for poor performance (7,14%) and the second reason for dropout was those who left their studies voluntarily (3.06%). In this case, both the reasons for dropping and the reasons for dropping out of their own volition are the same as for the first year. In the 3rd year, the highest dropout rate is for failure to complete studies - 5.81%, while 2.32% dropped out of their own volition.

#### 3.1.5. Substantiation of the development of the joint study programme and description and evaluation of the choice of partner universities, including information on the development and implementation of the joint study programme (if applicable).

## 3.2. The Content of Studies and Implementation Thereof

**3.2.1. Analysis of the content of the study programme. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators with the aims of the study course/ module and the aims and intended outcomes of the study programme. Assessment of the relevance of the content of the study courses/ modules and compliance with the needs of the relevant industry, labour market and with the trends in science on how and whether the content of the study courses/ modules is updated in line with the development trends of the relevant industry, labour market, and science.**

The study programme complies with the national education standards (see Annex 6). As a result of the study programme, students acquire the necessary knowledge, skills and competences corresponding to the seventh level of professional qualification (PQL 6) and the seventh level of the Latvian Qualifications Framework (LQF 6), which correspond to the Occupational Standard for Chief Specialist in Occupational Safety (see Annex 7). The compliance of the study programme with the specific regulatory framework of the relevant sector is reflected in the Annex "Specific Regulatory Framework". The curriculum plan for each type of study programme is given in Annex 9. The course descriptions of the study programme are given in Annex 10. The mapping of study courses to achieve the study outcomes of the study programme is given in Annex 8. Considering all the mentioned annexes, it can be concluded that the study programme complies with the national education standard and as a result of its completion the education and qualification corresponding to the normative regulation is granted, because the study programme content and set achievable goals are successfully achieved, providing graduates with the necessary academic knowledge and professional skills and competences.

The content of the study programme is constantly updated and improved in line with the latest trends in occupational safety, as well as the situation on the labour market and its requirements. In order to ensure the quality of the programme, several changes were made to the content and structure of the programme during the reporting period, which were necessitated by the recommendations gathered in the questionnaire results, as well as by changes in the regulatory enactments and the occupational standard.

Professional Bachelor study programme "Safety Engineering" was approved at the RTU Senate meeting on 31 January 2011, Minutes No 546, with the admission of students starting from the academic year 2011/2012. The study programme is implemented as full-time, in-presence studies in Latvian. Duration of studies in full time, in-presence form is 4 years. The programme admits students with secondary education. Admission of applicants to full-time basic studies is based on the results of centralised examinations. Upon completion of the study programme, a Professional Bachelor's Degree in Safety engineering and a qualification as an Occupational Safety Engineer are awarded. Occupational safety engineer may act as a competent professional, participate in the services offered by the competent authority in the field of occupational safety, work in enterprises or act as a state labour inspector. This qualification allows to continue studies at Master's level.

Following industry and scientific trends and feedback from students, graduates and employers, changes are made to the content of the programme as necessary, and the content of the courses is updated annually.

In the **academic year 2013/2014**, changes were made to the study programme "Safety Engineering" to assess the results of the first year of study. In the compulsory Part A, three courses were closed and two new courses were added - Occupational Health and Basic Principles of Industrial Medicine of 3 CP and Safety Requirements for Workplaces of 3 CP. The credit points of the study course Algorithmization and Programming of Solutions were increased from 2CP to 5CP. In addition, two courses were replaced - Mathematics (special course) of 4CP by Comprehensive Quality Management of 4CP; Engineering Mechanics of 3CP by Technical Mechanics of 2CP. Two courses were transferred within the subsections of the compulsory part.

In compulsory elective Part B "Building Survey" of 3CP has been replaced by Inspection and Diagnostics of Buildings of 3 CP. The course "Industrial Waste Management" of 2CP was added and the course "Safety Requirements for Workplaces" of 2CP was excluded.

**In 2021**, in connection with the development of new professional standards and the need to update the study programme, outdated and irrelevant study courses were excluded from the programme as a whole, and current courses were included instead - Civil Defence of 3CP, Innovative Product Development and Entrepreneurship of 4CP, Economics of 4CP. Mathematics 9CP, Mathematics (special course) 4CP, Physics 6CP, Basics of Quality Management 3CP, Environment Protection 2CP. Work Equipment and its Safety of 3CP.

In section B.1 of the professional specialisation courses, the scope of the unit was changed from 10 CP to 24 CP and the section was supplemented with the corresponding study courses: Material Science 3 CP, Electrical Engineering and Electronics 2 CP, Heating, Ventilation and Air Conditioning 2 CP, Safety in the Use of Hazardous Substances 3 CP, Fire Protection Systems 2CP, Metrology and Industrial Measurements 4 CP, Standardisation 2 CP, Construction Technology and Safety 4 CP. Outdated study courses were excluded. In the Humanities and Social Studies (B2) section of the restricted elective courses, the unit scope was changed from 2CP to 4CP and the courses "Basics of Communication" 2CP and "Intercultural Communication" 2CP were included.

**In February 2022**, courses Business Economics 2CP and Fundamentals of Economics 2CP were included in the compulsory Part A, Section A.1. of the programme, while the course Economics 4CP was excluded. The course "Occupational Health and Basic Principles of Industrial Medicine" 3CP and "Tactics and Equipment for Fire Extinguishing and Rescue Work" 2CP were transferred from Section B.1 to Section A.2. In section B1 of the Part B restricted elective professional specialisation courses, the course "Management of Technogenic Environment Safety", transferred from the compulsory section A.2, was included, revising its content and reducing the scope of the course from 3CP to 2CP. The content of the specialisation part was further improved by closing outdated study courses.

**In May 2022**, in order to reduce the fragmentation of study courses and update the content of the study programme, as well as in connection with the development of new professional standards, further changes were made to the content and structure of the programme. The study course "Environment Protection 2CP was excluded from the compulsory part A and instead new study courses "Environmental Engineering Part 1", 2 CP and Occupational Health and Basic Principles of Industrial Medicine" 3CP were included. In order to reduce the number of low-credit study courses, several study courses were closed and replaced by a new study course "Work Equipment Safety and Supervision" 5CP in section A.3 and "Safety and Risk Assessment of Technological Processes" 5CP in section B.1 professional specialisation study course of the restricted elective Part B.

According to the latest changes in the content and structure of the study programme, the compulsory study courses in this study programme include general education study courses with a scope of 12 CP, theoretical basic courses and information technology courses with a scope of 36 CP, professional specialisation courses with a scope of 36 CP. The restricted elective courses (32 CP) include professional specialisation courses of 24 CP, humanities and social studies courses of 4 CP,

and language studies courses of 4 CP. Free elective courses are worth 6 CP. The internship consists of 26CP and the state examination of 12CP.

Upon fulfilment of the requirements, graduates are awarded a Professional Bachelor's Degree in Safety Engineering and a qualification as Occupational Safety Engineer is awarded. The occupational safety engineer monitors and manages the working environment internally. Labour protection engineer applies engineering solutions and assesses and manages complex risk factors in the working environment. This includes safety assessment of technological processes in various sectors, safety analysis and action plan development of technical designs and other technical documentation for engineering communications and systems, analysis and improvement of safety systems, assessment of fire safety and fire protection systems, as well as civil protection and disaster management. Occupational safety engineers may act as competent professionals, participate in the services offered by the competent authority in the field of labour protection, work in enterprises or act as state labour inspectors.

Graduates are eligible to study in the second cycle of the Professional Master's degree programme "Occupational Safety" and, after completing their Master's studies, to pursue doctoral studies.

The study programme ensures that the content of study courses is up-to-date and relevant to the needs of the industry, the labour market and the latest scientific knowledge by regularly (at least once a semester) reviewing and analysing the suggestions of students, teaching staff and other stakeholders. The study programme is regularly developed, taking into account the recommendations and requirements of employers. For example, students' suggestions included the need *"to provide more specialised subjects"* in the programme. Although the programme has a sufficient number of specialisation subjects, the recommendation was taken into account and the specialisation subjects of the programme were supplemented with the study course "Fire Safety of Technological Processes and Explosion Hazard" in the amount of 3CP. One of the students comments: "Design the programme so that from the first year of study, students can understand what career they have chosen." This aspect is covered by the 1CP course "Introduction to Speciality". It was also pointed out that: *"Electronics and electrical engineering were too sophisticated and too labour-intensive. I think this subject should remain, but it should be a bit lighter because it was causing problems in other subjects that couldn't be kept up."* In response to this comment, discussions have been held with the course lecturer to revise the course content with the aim of balancing theoretical knowledge and reducing the amount of independent work where possible. Further implementation of the recommendations gathered from students, graduates and employers is given in Annex of Paragraph 2.2.4 *"Analysis and evaluation of the results of student, graduate and employer surveys and their use in improving the content and quality of studies, giving examples for each of the programmes included in the field of study."*

Before the start of the semester, each member of the teaching staff should review the course description, assessing the current course objectives and expected learning outcomes, and review the proposed teaching materials and literature sources, making sure that the literature is up-to-date and that the latest research in the field is presented. To ensure complementarity and non-overlapping of courses, the structure of the study programme is regularly discussed by the teaching staff. As a result of this collaboration, the number of changes were made to the content and structure of the study programme and the number of low-credit courses was reduced by combining or replacing them with higher-credit courses.

Practical and theoretical research plays an important role. Students develop their theses and dissertations on topical issues in the field by researching and analysing scientific and professional literature in libraries and international databases. Students use the acquired knowledge and insights both during their studies and during their internship when analysing issues related to



occupational safety and protection. Students present their research results at the annual RTU Students' Scientific Conference and summarise them in their Bachelor theses, which are publicly defended at the end of their studies.

**3.2.2. In the 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. In the 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 (if applicable).**

**3.2.3. Assessment of the study programme including the study course/ module implementation methods by indicating what the methods are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. In the case of a joint study programme, or in case the study programme is implemented in a foreign language or in the form of distance learning, describe in detail the methods used to deliver such a study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The Professional Bachelor's study programme "Safety engineering" provides for studying, in lectures, practical classes, laboratory work and literature studies, the study courses which ensure the achievement of professional competence. The programme provides students with professional knowledge in their field of specialisation, creating skilled commercial and public administration employees. In order to ensure the achievement of the goals and objectives set for the programme in the best possible quality, the study programme includes theoretical and professional specialisation study courses in the field - general study courses in the field, which form the basis for acquiring specialised knowledge and practical skills during further studies, as well as ensure the acquisition of practical skills necessary for professional activity. The didactic concept of the study programme is based on the use of the latest and most advanced teaching methods. It provides for the development and organisation of study content that ensures the sequential and in-depth acquisition of the knowledge provided for in the study programme and is oriented towards real practical examples and problem solving, in-depth study of theoretical and practical issues of occupational safety, fire safety and civil protection. This includes stimulating learning methods, as well as collaboration between students, lecturers and internship supervisors. The study programme also uses group work, situation analysis, seminars, discussions and study excursions to reinforce what has been learned. For example, the study course "Work Equipment Safety" included a study excursion to the State Certification and Testing Centre, during which students had the opportunity to learn about how work equipment is tested and conformity assessed in accordance with the requirements of the legislation. In the framework of the study course "Legislation on Labour Protection, Fire Safety and Civil Defence", students took part in practical work at the SFRS Civil Protection Operational Control Centre, as well as on study excursions to the "Latvian Firefighting Museum". Within the framework of the study course "Organisation of Fire Security Preventive Works and Fire Investigation" practical classes were organised for students at the State Police Forensic

Department. Within the study courses "Fire Safety of Technological Processes and Explosion Hazard" and "Tactics and Equipment for Fire Extinguishing and Rescue Work", laboratory work and familiarisation classes were organised at the Fire Safety and Civil Protection College of the State Fire and Rescue Service of the Ministry of the Interior. Within the study course "Occupational Health and Basic Principles of Industrial Medicine" 1st year students participated in a theoretical disaster management training scenario at NMC (Emergency Medical Centre) and OMG (Operational Management Group) held at Paula Stradiņš University Hospital (<https://zinass.tv3.lv/latvija/macibas-stradina-slimnica-izspele-izspele-ricibu-pec-kimisko-vielu-spradziena/> only Latvian ). The aim of the training was to test the capacity and cooperation of the civil protection system to ensure continuity of healthcare operations. In the scenario, the students played the roles of patients (both civilians and emergency service workers) who have been poisoned by chemicals, burnt and injured to varying degrees following a factory explosion and subsequent disaster medical alert.

The study programme regularly invites guest lecturers from abroad, as well as experts in the field and representatives of companies. For example, students had the opportunity to attend a lecture by the guest lecturer from the Rochester Institute of Technology (USA) on "Principles of Risk Management: Assessing Risk & Asking the Right" un "Experiences & Intuitions in Effective Fire Prevention & in Effective Fire Fighting & Minimizing the Risk of Fires n the U.S". In the framework of the study course "Industrial Waste Management", a guest speaker from the Council of the Baltic Sea States (CBSS) gave a lecture on "Innovative Industrial Waste Management in the Baltic Sea Region and its Impact on the Environment " , but an expert in the field and former head of the State Environmental Service gave a lecture on "Good and bad experiences of industrial waste management in Latvia". As part of the study course "Civil Defence", the 2nd year students were given a guest lecture on the topic "Mistakes that are most often made in Civil Protection Plans for facilities" by the Senior Inspector of the Security Strategy Division of the Procurement and Assurance Department of the SFRS. In the study course "Working Environment Risk Prevention Methods", the Safety Management Manager of AS "Latvijas Finieris" Safety Management Manager presented the topic "Maintenance and digitalization of AS "Latvijas Finieris" labour protection system" to 3rd year students.

The study programme is implemented in full-time, in-presence form, in Latvian, in compliance with the requirements formulated in the regulatory enactments, the basic principles of study organisation established by RTU and all the requirements of the study courses. The course descriptions of the study programme define the set of relevant knowledge, skills and competences and their assessment system, and define the study outcomes for the achievement of which credits are awarded. The procedure for the assessment of students' knowledge, skills and competences is determined by the Senate's Decision "On the Regulations for the Assessment of Study Results" of 27 May 2017, which complies with the basic principles and procedures for the assessment of education defined in the Regulations of the Cabinet of Ministers of the Republic of Latvia for the relevant study cycle. The summative marking system is used to assess student achievement, where the final mark is made up of several components.

Full-time, in-presence study corresponds to 40 CP (60 ECTS) per academic year and 40 academic hours of work per study week, which is 1 CP (1,5 ECTS). Pedagogical methods of implementation of study courses, as well as evaluation methods are selected by the teaching staff responsible for the study course, according to the course content and study programme specifics, as well as the needs of the students.

Full-time students do not have much practical experience, so teaching methods that combine theoretical knowledge with its practical application are used more - lectures, practical work, group work, homework and research, with analysis and explanation of different situations from both

theoretical and practical perspectives. Emphasis in full-time in-presence study is placed on equal distribution between students' independent work and contact hours, using both problem-based learning, situational analysis and the tutor's advisory role.

The programme is implemented using RTU's interactive e-learning environment, built on the Moodle platform, which is regularly used by students, academic staff and guest lecturers. The portal provides the student with access to all the up-to-date information during the study process. It provides access to current study courses (annotations, requirements for successful completion of the study course, lecture plan, lecture and practical materials, required literature, etc.), information on student's performance and passed study courses, current reports, library information, access to educational and scientific literature, access to databases, e-mail, etc. In the e-learning environment, teachers upload various tests and assignments for self-monitoring of the student's knowledge, and the system also allows for various midterm and final examinations. Teaching staff also post information about online lectures in the e-learning environment. This platform allows to communicate with any member of staff and, for current courses, also with fellow students. The platform has discussion forums, regular surveys on the content, quality and presentations of the teaching staff member who deliver the courses.

In academic matters, individual approach is ensured in accordance with the methodology approved by the Order of the Rector of RTU "On guidelines for planning the work of a teaching staff member", which stipulates that a teaching staff member must provide consultations for every 25 students in a lecture stream in the amount of 15% of the amount of lecture hours. In addition, there are separate consultation hours for supervising coursework and projects, internships and final projects. Pre-exam counselling is organised before the exams. If necessary, students can directly contact the lecturer outside the consultation hours by posting their questions in messages or in the relevant course forum in ORTUS, or by e-mail.

At the end of each semester of each study course, the course teachers submit the course evaluations to the registry office and record them in the ORTUS system for the specific study course. The results of students' studies are analysed both in course group meetings with students and in meetings organised by the study programme administration.

ILCP provides teaching and methodological work: establishes and updates study subject programmes, provides teaching of relevant study subjects, conducts and defends qualification theses and carries out other activities related to teaching, methodological and scientific work.

The study process is designed as an active, engaging process for students, including lectures, seminars, discussions, solving situations and practical tasks, individual and group work, including research work, study excursions to companies and field trips, internships, guest lectures by representatives of employers.

The results of the assessment of students' knowledge are discussed twice a year (at the end of each semester) at a meeting of the department, they are collected and evaluated by the study programme administration, and they serve as a basis for further improvement of the study process. Discussion and analysis of learning outcomes is carried out in cooperation with the teaching staff involved in the study programme, as well as with the students - at the senior level of the course groups, the learning outcomes are analysed in a detailed and personalised way.

Each course description contains a section on the skills and competences to be acquired in the course (see the Course Register in ORTUS). In line with the latest trends in occupational safety, fire safety and civil protection, it is necessary to analyse different situations that contribute to students' problem-solving skills by carrying out this work independently and/or individually. Students should also take note of the existing laws and regulations governing occupational safety, fire safety and

civil protection in Latvia. Students always have the opportunity to express their views in dialogue and to share their professional experiences, thus explaining the issues at stake on the basis of examples and thus understanding the essence of the course.

The programme is completed by a **state examination**, which is graded according to a ten-point system and includes the defence of the Bachelor's thesis. The criteria for the defence of the Bachelor's thesis are:

- systematising, updating and extending theoretical and practical knowledge, individual experience and experience gained through study internship;
- independent analysis of educational and scientific literature, legislation and regulations relevant to the chosen specialty, mass media and other information sources, including in foreign languages;
- the problems to be investigated, which include individual and complex novelty elements, and the problem-solving skills to combine them with theoretical frameworks;
- analysis, systematisation and recommendations of current applied problems;
- developing and planning practical management and professional solutions;
- the ability to present research and practical results.

The diploma is awarded to graduates who have completed the programme and passed the national exam with a score of at least 4 (almost average).

For administrative matters, students are given the opportunity to meet with the programme management during office hours to resolve individual issues. In problematic situations, students are invited to discuss with the programme management. Information of an operational nature is posted on the website, messages are sent to students via the ORTUS system, and e-mail and telephone are used for individual communication. Regular meetings are organised between students and the programme director, giving students the opportunity to discuss and debate current issues. This helps to maximise the quality of the learning process by responding to student input.

The principles of student-centred education are therefore taken into account throughout the entire study process.

### *1. Student involvement in the study process and content development*

RTU has developed procedures to provide students with feedback on the quality of the study process (questionnaires, regular student meetings with the programme director), thus students have the opportunity to influence their study process. Students are regularly involved in the evaluation of the quality of study programmes, participate in decision-making and advisory bodies, and organise meetings with the programme director to discuss the positives and negatives of the semester courses, as well as the competence, ability, attitude and quality of each member of the teaching staff. This gives students the opportunity to influence and contribute to improving the study process.

The University has appropriate procedures for the submission and resolution of student proposals and complaints [https://www.rtu.lv/writable/public\\_files/RTU\\_studeoso\\_priek\\_un\\_sudz\\_iesn\\_un\\_izsk\\_kart.pdf](https://www.rtu.lv/writable/public_files/RTU_studeoso_priek_un_sudz_iesn_un_izsk_kart.pdf). The complaints process is channelled through the Programme Director and the Head of Department, the Head of the Department of Studies or even the Vice-Rector of Studies, if necessary. In the "Safety engineering" programme, students first work with the Programme Director to solve problems, thus responding to issues in a timely manner. This approach allows problems or disagreements to be resolved at an early stage and prevents problems from escalating.

### *2. Learning outcomes*

The programme's course grades and number of credits are linked to the learning outcomes. Students are informed about the results of each course of study. The teaching staff relate the results of the course of study to the results of the study programme, as well as argue for the necessity of acquiring the information of this course in order to obtain a professional bachelor's degree in occupational safety and a professional qualification as an occupational safety engineer. Teaching staff of study courses take into account and respect the diversity of students and the diversity of their needs, using different ways of implementing the programme, according to the abilities of the students. At the end of the course, students evaluate the performance of each member of staff by completing a course evaluation questionnaire. Students of the study programme are also regularly included in the RTU Gold Fund <https://www.rtu.lv/lv/studentuserviss/karjeras-centrs-ssc/projekti-un-seminari/rtu-zelta-fonds>. The Golden Fund includes, in each academic year, the students who are the best graduates of that academic year. The Gold Fund Ceremony is a celebratory event that brings together the very best in a special atmosphere, while also fostering a sense of belonging to your university. In the reporting period, seven graduates of the study programme "Safety Engineering" have joined the Golden Fund: Matīss Šmitiņš (2015/2016), Kitija Roze (2017/2018), Līga Jupatova (2018/2019), Marija Mičule (2019/2020), Anna Golubeva (2019/2020), Ieva Andersone (nee Grantiņa) (2020/2021) and Staņislavs Jermakovs (2020/2021). Taking into account that the total number of graduates included in the RTU Gold Fund in 2022 is 1194 graduates, the share of graduates of the study programme "Fire Safety and Civil Protection" in the Gold Fund only for the reporting period is approximately 0.6% of all graduates included in the RTU Gold Fund. This can be considered a good indicator, especially taking into account the relatively small number of students in the study programme in relation to other RTU study programmes, where the number of students tends to be several times higher.

### *3. Mobility*

During the studies the students have the opportunity to attend lectures given by lecturers from foreign universities, which allows the lecturers and students involved in the implementation of the programme to adopt good practices that can be shared with the guest lecturers. For example, in 2020 students had the opportunity to attend a lecture by a guest lecturer from the Rochester Institute of Technology in the USA entitled "Principles of Risk Management: Assessing Risk & Asking the Right", while in academic year 2022 the lecture by the same guest lecturer - "Experiences & Intuitions in Effective Fire Prevention & in Effective Fire Fighting & Minimizing the Risk of Fires in the US". In the academic year 2021, 3rd year students had the opportunity to listen to a lecture by the Swedish CBSS (Council of the Baltic Sea States) guest speaker "Innovative industrial waste management in the Baltic Sea Region and its impact on the environment".

Students and teaching staff benefit from mobility opportunities. For example, A. Golubeva, a student of the RTU Gold Fund, participated in a two-week camp in China organised by RTU in the 2017 academic year. ERASMUS+ programme from 01.07.2019. to 31.08.2019. 3rd year student of the "Safety Engineering" study programme had an internship in Estonia at the company "AS Saku Metall". In the period from 18.10.21 to 07.01.2022 two 4th year students of the study programme "Safety Engineering" underwent an undergraduate internship in Sweden (Swedish Defence University), and from 01.11.2021 to 05.11.2021 two 4th year students underwent a 5-day intensive training course in Norway (The Arctic University) within the activities of the international NEEDS project. Also, as part of the international NEEDS project, two 4th year students participated in a five-day intensive training course at Laurea University in Finland from 01.05.2022 to 07.05.2022. Within the activities of the same international project, from 11.09.2022. to 17.09.2022 Latvia, as a cooperation partner and host country of the project, organised an intensive training week at the RTU Sports and Conference Centre "Roniši", which was attended by 8 students from the following countries: The intensive training process was coordinated by project partners from Latvia (Riga

Technical University), Norway (The Arctic University of Norway), Finland (Laurea University of Applied Sciences), Poland (Main School of Fire Service), Sweden (Swedish Defence University) and Finland (Laurea University of Applied Sciences). The students were advised and lectured by project partners from Latvia (Riga Technical University), Norway (The Arctic University of Norway), Poland (Main School of Fire Service) and Sweden (Council of the Baltic Sea States). During the intensive training week that took place within the framework of the project, practitioners from Hamburg Fire and Rescue Service (Germany), Tallinn Municipal Police (Estonia), Lahti Municipal Police (Finland), State Fire and Rescue Service (Latvia) and Liepaja Municipal Police (Latvia) shared their practical experience with Latvian and foreign students and gave lectures.

The full student mobility is presented in the Annex "Izejošā\_studējošo\_mobilitāte\_Outgoing\_Mobility\_Students" in Part II, and the mobility of teaching staff in the Annexes "Izejošā\_mobilitāte\_Erasmus\_mācībspēki\_Outgoing\_Mobility\_Erasmus\_Staff" and "Izejošā\_mobilitāte\_mācībspēki\_CITS\_Outgoing\_Mobility\_Staff\_Other".

#### *4. Social dimension*

The study process is flexible enough to allow students to combine their studies with work, family life and various extracurricular and social activities during their studies. The flexibility of the study process is also demonstrated by the fact that students actively implement different types of social dimensions both during and outside their studies at RTU. Graduates of the study programme have been repeatedly included not only in the RTU Golden Fund, but also actively participate in the RTU Student Council, participate in RTU sports events, sing in choirs, dance in dance groups, participate in the development and promotion of various informative seminars and educational materials, etc. For example, Matīss Šmitiņš, who was included in the RTU Golden Fund of the 2015/2016 academic year, has actively participated in the RTU IEVF Student Council, while Kitija Roze, who was included in the Golden Fund of the 2017/2018 academic year, has repeatedly organised course team building events (sports activities, meetings and excursions). Līga Jupatova, who is included in the Golden Fund of the 2018/2019 academic year, has been a member of the RTU Senate elected by the Student Parliament, a member of the Strategic and Financial Division, has been active in the Student Division of IEVF and the Student Parliament (working on changing the sports infrastructure and raising the weighted average grade), participated in the RTU SP 3D competition, participated in the creation of the IEVF Self-Government Symbol, moderator of the seminar "Solis 2017", "Missing 2017 and 2018", RTU SP "SP Academy 2017", "Science Month 2018", participated in the organizing team of "3D Printing Contest 2018", and has been the head of the Public Relations Department of the RTU IEVF Student Self-Government. Anna Golubeva, who is also included in the Gold Fund, took part in a photo competition organised by RTU IEVF in honour of the new lounge in the basement of the faculty.

Originally open only to students who wished to study at their own expense, the programme now offers budget places, which are widely used by students. Scholarships and study loans are also available to the students. In addition the study programme is taught in facilities that are accessible to people with reduced mobility. A student dormitory is available for students living in remote areas. It is also worth mentioning that the RTU library is open to students 24 hours a day, as well as on weekend

#### *5. Teaching and learning methods*

The programme uses a variety of teaching and learning methods. For example, study projects are developed, group work takes place, and in some courses a method is used that allows students to assess and learn from each other and share their experiences with others. Guest lectures are also held on regular basis. Students have the possibility to receive individual counselling from teaching staff via ORTUS, email and telephone, as well as in-presence individual counselling if needed.

The programme constantly reflects on improving the form and process of study. The changes are mainly focused on replacing the learning style with "teaching to learn" and integrating information technology into study process. For example, in the light of the remote learning experience during the pandemic, a Samsung Flip 3 interactive whiteboard was purchased in 2022 to make the learning process more efficient and up-to-date by providing an interactive learning experience and expanding the resources available to faculty to better integrate modern teaching and learning methods into the learning process.

Currently, special attention is paid to one of the most common methods of active study work - the analysis of situational tasks or situations (case studies), where the factual material of foreign and domestic companies is mainly used. It should be noted that the faculty has developed a series of situational exercises as part of the programmes.

#### *6. Learning environment*

During the implementation of the programme, cooperation between the RTU library and the academic staff of the study programme takes place with the aim of improving the teaching and learning process. In the first year, students are introduced to the resources and databases available in the library. Teaching staff involved in the programme and students also have access to research and learning facilities with appropriate equipment. Both students and teaching staff can use the Bloomberg Laboratory, both the Occupational Health Laboratory and the Fire and Civil Protection Laboratory for their research projects.

To ensure social accessibility at all levels, the study programme is taught in facilities that are accessible to people with reduced mobility. A student dormitory is available for students of the programme, if needed. It is also worth mentioning that the RTU library is open to students 24 hours a day, as well as on weekends.

#### *7. Competence development of academic staff*

ILCP training and qualification improvement is provided to the academic staff through various special courses or seminars in Latvia and abroad, participation in organisational and methodological work, participation in international projects, work of other organisations, practical work as consultants, as well as annual participation in conferences and methodological seminars organised by RTU and other higher education institutions. Lessons learned from further training and research are incorporated into teaching. For example, in the academic year 2021/2022 Jānis Ieviņš, Jānis Bartušauskis and Matīss Šmitiņš underwent 200-hour academic staff internships at SIA "Latvijas standarts" and SIA "Milzu!" within the framework of the specific support objective SAM 8.2.2 "Strengthening academic staff of higher education institutions in areas of strategic specialisation" of the European Social Fund project "Strengthening academic staff of Riga Technical University in areas of strategic specialisation" No 8.2.2.0/18/A/017 under the activity programme "Growth and Employment". The insights gained during the internship were used to improve the content of the study programme courses.

A more detailed analysis of the professional development and competences of the academic staff involved in the implementation of the study programme is provided in Section 3.4.1.

#### *8. Extra-curricular activities of the students*

The programme management supports and encourages students to participate in student self-government, thus allowing students to develop their independence, giving them the opportunity to implement their ideas, as well as opportunities for additional learning outside lectures. Everyone in the programme is offered opportunities to get involved in extra-curricular activities (sports teams, dance groups, choirs, etc.). All this indicates an active extra-curricular life and extra-curricular

opportunities for students.

Students are also involved in scientific work and research on topical issues in the field, participating in both local and international conferences. For instance, on 22 April 2022, the Institute for Labour and Civil Protection, in cooperation with the Council of the Baltic Sea States, organised a conference "What is the new normal in societal security?" within the Erasmus+ project NEEDS "Needs-based education and research in societal security". ", attracting not only ILCP students but also international students, lecturers and practitioners from other Baltic Sea Region countries.

In the academic year 2021/2022, 2 students from the professional bachelor study programme "Safety Engineering" had an undergraduate internship at the Swedish Defence Academy, where they conducted research not only as part of their bachelor thesis but also as part of the Erasmus+ project NEEDS, i.e. they developed case studies on the impact of pandemics on public safety.

Anna Golubeva, who is included in the RTU Golden Fund for the academic year 2019/2020, is active in the National Guard organization outside her studies, participates as a dancer in concerts organised by the Polish folk dance group, has been a volunteer at the children's camp "Forest Camp", attended Chinese language courses organised by RTU and passed the Chinese HSK exam (2nd level), has been a monthly recipient of the RTU Best Student Scholarship, as well as a Polish scholarship for students who have good academic results and actively participate in events to promote Polish culture. Ieva Andersone (nee Grantiņa), who has been included in Gold Fund in academic year 2021/2021, representing SIA Silkeborg Spaantagning Baltic"" participated in the occupational safety film competition organised by the RSU Agency Institute of Occupational Safety and Environmental Health and received financial support to make an occupational safety film, based on her script, a 5-minute informative film about the risks associated with working while standing and how to prevent these risks; participated in a focus group interview, sharing companies' experiences on changes in employment in the study "Life with Covid-19: Assessment of the management of the coronavirus crisis in Latvia and proposals for future societal resilience".

From 2011 to 2014, the scientific journal "Safety of the Technogenic Environment" was published in 6 volumes. The collection included scientific articles reflecting contemporary technogenic environmental security issues in the context of new economic and global developments. The collection included research results of Latvian and foreign scientists, academics, PhD students and students. Since 2014, it has been decided to close the magazine for financial reasons. Now the publications are included in the journal "The Baltic Journal of Real Estate Economics and Construction Management" published by RTU IEVF Faculty in cooperation with two partner universities in the Baltic region - Tallinn University of Technology (Estonia) and Vilnius Gediminas Technical University (Lithuania) and in the scientific journal "Rural Sustainability Research" of Latvia University of Agriculture.

**3.2.4. If the study programme envisages an internship, describe the internship opportunities offered to students, provision and work organization, including whether the higher education institution/ college helps students to find an internship place. If the study programme is implemented in a foreign language, provide information on how internship opportunities are provided in a foreign language, including for foreign students. To provide analysis and evaluation of the connection of the tasks set for students during the internship included in the study programme with the learning outcomes of the study programme (if applicable).**



Internship outside the educational institution is an integral part of professional bachelor studies to be performed by students in accordance with the Regulation of the Cabinet of Ministers of the Republic of Latvia of 21 June 2023 No. 305 "Regulations on the state standard of professional higher education", Senate of RTU of 30 March 2020 (Minutes No.638), as amended: 21.11.2022 (Minutes No. 667, entered into force on 22.11.2022), Decision "On Approval of the New Wording of the Unified Requirements for Study Programmes of Riga Technical University" and Decision of the RTU Senate of 28 January 2019, Minutes No 626 "On Approval of the New Wording of the Procedure for Organisation of Internships at Riga Technical University". The internship is conducted in accordance with the regulations, the general rules of which have been established by the RTU Senate.

Students studying a professional education programme need to combine theoretical knowledge with practice. The four-year Professional Bachelor's study programme "Safety Engineering" includes a **26CP (39 ECTS) internship**, which is divided into a **16CP (24 ECTS) specialisation practice** and a **10CP (15 ECTS) practical placement for pre-graduation project**. The content of the internship is determined by the "Methodological Instructions on the Organisation, Implementation and Defence of the Specialisation Internship in the Bachelor Professional Study Programme "Safety Engineering"" and "Methodological Instructions on the Organisation, Implementation and Defence of the Undergraduate Internship in the Bachelor Professional Study Programme "Safety Engineering"" adopted by the Department of Occupational and Civil Protection. The internship guidelines are available in ORTUS (for authorised users), from programme directors, practice coordinators and the head of the training office. The normative documents regulating the activities of the University are available at the programme administration and on the RTU website ORTUS on the Internet.

The internship placement is provided to the student by concluding an appropriate agreement between RTU, the student and the company. If the student is not employed anywhere, the placement is provided by the department or RTU offers the assistance of a Student Career Support Officer who can find a suitable placement.

During the reporting period, 143 trainees have completed internships at 83 internship sites in the study programme "Safety Engineering". The most popular internship sites with the highest number of trainees are SIA FN-SERVISS (12 trainees), SIA Media Control (6 trainees), SIA Grifs (5 trainees), State Labour Inspectorate (5 trainees), SIA Sertifikācijas centrs SIA (4 trainees), AS Sadales tīkls (4 trainees), SIA Severstal Distribution (3 trainees), SIA Sunstar Group (3 trainees), SIA "Rīgas Austrumu klīniskā universitātes slimnīca" (3 trainees), etc..

The aim and objectives of the internship are closely linked to the duties and tasks specified in the professional standard, which ensure the consolidation and application of theoretical knowledge in practice.

The aim of the specialised practice is to acquire practical skills for independent work, to systematise, consolidate and extend theoretical and practical knowledge, and to develop work skills as future senior occupational safety and health officers. The objectives of the specialised practice are to assess compliance with the requirements of labour protection legislation; to analyse the functioning of the organisational structure of labour protection; to acquire practical skills in drafting regulatory documents for the labour protection system; to acquire skills in assessing workplace risks and identifying preventive measures; to strengthen communication skills with employees of the enterprise/institution. As a result of the specialised practice, the student is familiar with the set of duties and tasks related to labour protection in the enterprise/institution; understands the principles of the organisational system of labour protection as well as its role in the core business of the enterprise/institution; is able to analyse the knowledge gained during the internship, evaluate the labour protection system of the enterprise/institution and recommend improvements if

necessary; is able to collect and prepare materials from the specialised internship as well as to present them. The supervisor at the internship placement site gives feedback (completes and evaluates a feedback form), giving an assessment of the trainee's knowledge, theoretical background and communication skills. This keeps a close contact with the industry, enabling to develop and improve the curriculum to an even higher quality and in line with labour market requirements. The student prepares a report on the specialized practice, which is presented and defended to the department's internship defence committee.

The goal of the **Practical Placement for Pre-Graduation Project** is to help students prepare materials for their final work. The objectives of the pre-diploma internship are to systematise, strengthen and expand the student's theoretical and practical knowledge in the field of labour protection; to strengthen the student's knowledge of labour protection research and work environment risk assessment methodology; to develop skills in the analysis of scientific literature and other sources of information; to develop and strengthen the student's independent work skills and the ability to publicly defend the results obtained. As a result of the practical placement for pre-graduation project, the student is able to demonstrate the purposefulness of using the knowledge and skills acquired during the studies of the professional bachelor study programme in defining and solving theoretical problems in the context of a practical task, is able to analyse data, find problems and ways of solving them in a particular enterprise, is oriented in the necessary information and raw materials, as well as purposefully uses them in creative work, the internship has strengthened the acquired knowledge when working on the content of a diploma project or bachelor thesis. The supervisor at the internship placement site gives feedback (completes and evaluates a feedback form), giving an assessment of the trainee's knowledge, theoretical background and communication skills. This keeps a close contact with the industry, thus ensuring development and improvement of the curriculum to an even higher quality and in line with labour market requirements. The student prepares an internship report on the practical placement for pre-graduation project, which is presented and defended to the department's internship defence committee.

At the end of both the specialisation and practical placement for pre-graduation project, the student prepares an internship report, which is presented and defended and evaluated by a committee established by the ILCP, taking into account the feedback of the internship supervisor, the evaluation of the internship coordinator and the internship report prepared by the student, which is evaluated according to a 10-point system.

Employers with an internship contract, industry professionals with invaluable experience and the institute's faculty are involved in defining the goals and objectives of the internship, as well as in evaluating the internship. The aim of the internship is achieved on the basis of the knowledge, skills and competences acquired. This is also reflected in the scores of the internships, where 25% of all internships are scored with 9 points, 24% with 8 points, 21% with 7 points, 14% with 10 points, 10% with 6 points, 5% with 5 points and only 1% with 4 points. As can be seen from the evaluations, practically half of all defended internships have been rated "very good" and "excellent" by employers and faculty members in the summative evaluation, which shows that the programme content is of high quality and provides students with a combination of practical skills and knowledge that is also appreciated by employers and professionals in the field.

In accordance with the procedure "Procedure for Recognition of Competences Acquired Outside Formal Education or in Professional Experience and Study Results Achieved in Previous Education at Riga Technical University" approved at the RTU Senate meeting on 23 September 2019 (Minutes Decision No 632), the study programme also provides opportunities for recognition of previously acquired study period, professional experience, previously acquired formal and informal education, which is a convenient and relatively simple procedure for students. All students of the study

programme are informed about this possibility at the very beginning of their studies, but the document defining the recognition procedure is available on the RTU website (available at [https://international.rtu.lv/wp-content/uploads/sites/65/2021/02/09.-Procedure\\_for\\_Recognition\\_of\\_Competerencies\\_Developed\\_Outside\\_Formal\\_Education.pdf](https://international.rtu.lv/wp-content/uploads/sites/65/2021/02/09.-Procedure_for_Recognition_of_Competerencies_Developed_Outside_Formal_Education.pdf) and in the file of Annex 09 of the List of Internal regulations).

The structure and other formal conditions of the Professional Bachelor study programme "Safety Engineering" shall comply with the requirements set out in the state normative acts and the decisions of the RTU Senate. As a result of the studies, the student acquires knowledge and the necessary professional competences that meet the requirements of the European Qualifications Framework (EQF) and the 6th level of the Latvian Qualifications Framework (LQF) and 6th level professional qualification (Occupational Safety Engineer) and constitute a certain degree of culture and intelligence, as well as enable to start a professional activity appropriate to the specialty. The study material on the organisation of internships and the normative documents regulating the activities of the University are available on the RTU website, at the programme administration and in the ORTUS system.

### **3.2.5. Evaluation and description of the promotion opportunities and the promotion process provided to the students of the doctoral study programme (if applicable).**

### **3.2.6. 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 marks of the final theses.**

The study programme "Safety engineering" prepares occupational safety engineers. Students are matriculated in this programme after completing their secondary education.

The professional bachelor's study programme "Safety Engineering" prepares high-level specialists in the fields of occupational safety, fire safety and civil protection. Students study both general engineering courses and specialised courses of study according to the profession's standard over four years. During their studies, students undergo both specialized and practical placement for pre-graduation project, which allow them to consolidate the acquired theoretical knowledge in practice, as well as to successfully develop final theses on the chosen topic and provide professional recommendations for problem solving.

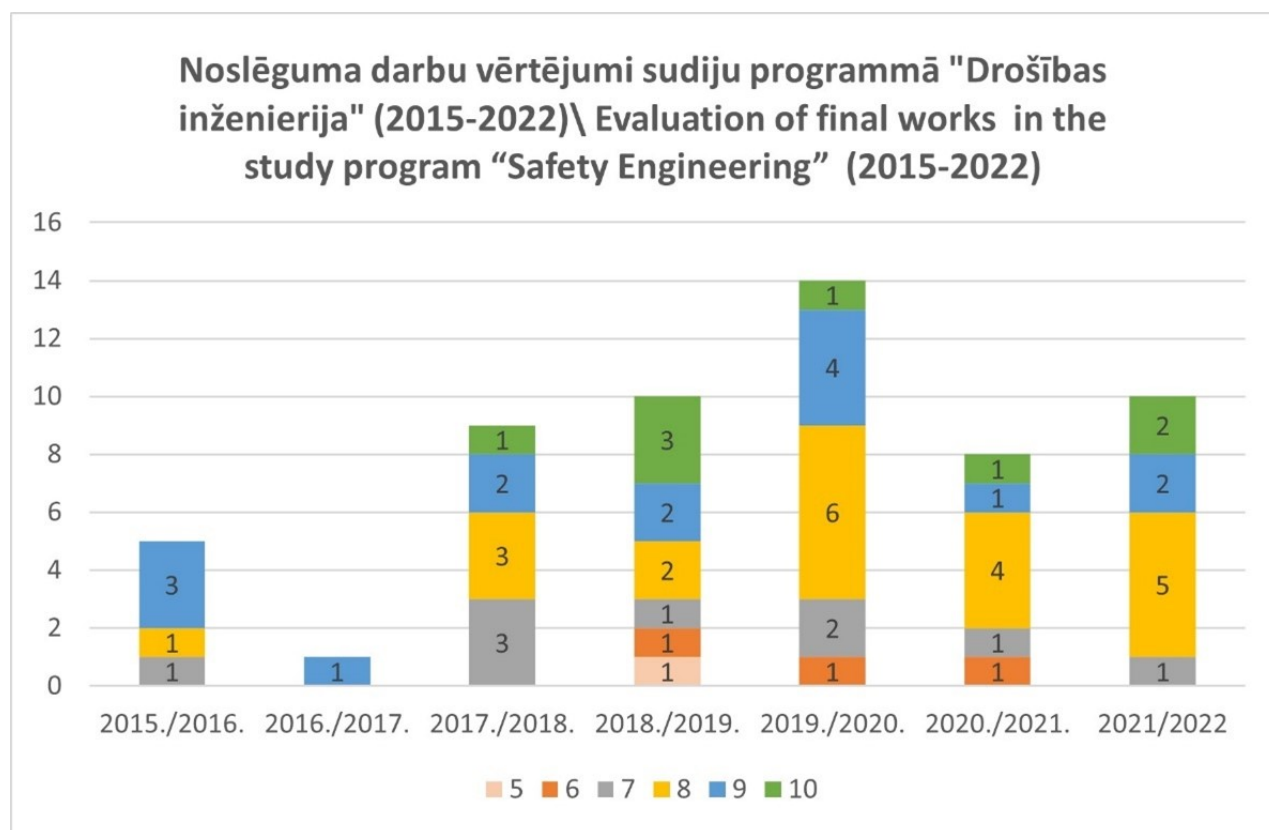
Students formulate and develop the topics of their Bachelor theses according to the qualification they are obtaining, which means that they write about various occupational safety, fire safety and civil protection issues, their improvement, which is necessarily supported in the practical part with substantiated proposals. Bachelor's theses state the topicality of the subject and analyse the sector under study.

The study programme is completed by a state examination, which includes the elaboration and public defence of a bachelor thesis at an open meeting of the State Examination Committee (hereinafter - SEC). The Bachelor thesis can only be defended if the student's knowledge and skills in the theoretical and specialised areas of the field have been successfully assessed. The national

test demonstrates the student's ability to:

- find, summarise and analyse the necessary normative acts, as well as academic and professional literature in the field (including in English);
- using appropriate methodology and information processing technologies, analyse the labour protection system of the organisation, assess its compliance with the normative acts;
- conduct an independent study of a specific problem of importance and topicality for the company, related to labour or health protection at work; - draw reasoned conclusions and formulate appropriate proposals;
- present the developed proposals and defend a professional personal opinion.

The SEC shall consist of at least five members of the commission. The head of the Commission and at least half of its members shall be representatives of professional organisations or employers in the sector. The SEC collectively assesses students' knowledge, skills and competence on a 10-point scale. By participating in the final thesis defence commissions, industry representatives can give their suggestions on topics they would like to see students researching in the near future and which are relevant to the labour market. These suggestions are taken into account and the themes of the perspective final theses are developed in line with the labour market and industry. This is positively perceived by employers and students are often offered positions in commercial or government structures.



When analysed over all years of study, 14% of all graduates scored 10 (outstanding). 26% of graduates rated 9 (excellent), almost 3% rated 8 (very good), about 16% rated 7 (good), about 7% rated 6 (good) and almost 2% rated 5 (average) of the total number of graduates in the reference period.

Looking at the final theses grades, the average grade per year is: 7.6 points in the academic year 2014/2015, 7.7 points in 2015/2016, 8 points in 2016/2017, 8.2 points in 2017/2018, 7.7 points in

2018/2019, 8 points in 2019/2020, 8 points in 2020/2021 and 8.5 points in 2021/2022.

The aggregated evaluation data show that Bachelor's theses are of high quality and in line with the current trends in professional activity.

The best final theses are on topics such as:

- "Improving the methodology for assessing workplace risks for water supply trenchers" (2018);
- "Development and implementation of an occupational safety system at AS "Rīgas kuģu būvētava"" (2019);
- "Psycho-emotional load in pre-school education" (2019);
- "Current challenges and solutions in occupational safety for the arboriculture profession" (2019);
- "Reducing accidents in the electricity supply industry" (2020);
- "Creating a safety culture in a woodworking company" (2021);
- "Improving safety briefings in remote working" (2022);
- "Improving the safety of the working environment for young people in remote working" (2022).

From 2016 to 2022, 57 students have graduated from the programme, with an average grade of 8.3 in their final theses.

### **3.3. Resources and Provision of the Study Programme**

**3.3.1. 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.**

Information on the general resources and facilities available at RTU for the implementation of the study programme is described in Part II, Chapter 3, Sections 2.3.1 - 2.3.3. In addition to the above resources, the specific resources and facilities required for the implementation of the study programme are used.

Students of the Professional Bachelor's study programme "Safety Engineering" have access to 2 teaching laboratories with teaching equipment (fire safety laboratory and occupational safety laboratory), which are continuously updated and improved. The occupational safety study laboratories are used for research work on the measurement of the working environment, which is used in practical work and in the writing of Bachelor's theses.

The following mobile equipment has been purchased to improve students' practical knowledge and skills:

- 4 in 1 multi-parameter measuring apparatus that measures four parameters - light, noise, temperature and humidity;
- VT-2700 vibration meter;

- RF/EMF Strenght meter 480836, suitable for EMF measurements on mobile phones, mobile base stations and microwave leakage;
- Megger MTF-1835 combination meter for insulation resistance, loop phase and 0 (zero) measurements;
- METER MA2067, a teaching demonstration stand for electrical installations, is unique in that it can be used for laboratory work on protective earth equipment test measurements, earth specific resistance measurements, lightning protection earth equipment test measurements, electrical equipment insulation resistance measurements, measurement of the phase-to-zero total resistance and short-circuit current of loops of electrical equipment in circuit sections and the provision of protection of permissible calculated corresponding electrical circuits with existing fuses or automatic devices, determination of nineteen different types of short-circuit in electrical networks;
- Automatic fire detection, extinguishing and fire alarm training equipment capable of providing training in the construction, operation and design of automatic fire detection, extinguishing and fire alarm systems;
- Impact Pro, a portable gas analyser, can monitor and display up to four gases simultaneously.

This and other equipment allows students to use it outside RTU for their own research, to make indicative measurements of the working environment for their Bachelor's thesis.

The establishment of the training laboratory on the basis of the ILCP Department has enabled a significant modernisation of the training process, as well as a more effective level of practical training of students to become modern occupational safety and health professionals.

The specific nature of the study programme means that a very large part of the required compulsory literature consists of various normative acts, which are freely available to students online at [www.likumi.lv](http://www.likumi.lv). In addition, the RTU Research Library has a wide range of books and other information resources relevant to the study programme "Safety Engineering":

- Bioenerģijas tehnoloģijas / D. Blumberga ... [u. c.]; Dagnijas Blumbergas redakcijā; Rīgas Tehniskā universitāte. Vides aizsardzības un siltuma sistēmu institūts. Rīga : RTU Vides aizsardzības un siltuma sistēmu institūts, 2011. 272 lpp. : il. ISBN 9789934819636
- Blumberga, A., Blumberga, D., Kļaviņš, M., Rošā, M., Valtere, S. Vides tehnoloģijas. Rīga: Latvijas Universitāte, 2010. 212 lpp. ISBN 978-9984-45-274-6.
- Civilā aizsardzība : laboratorijas darbi / [sastādīja Vladimirs Jemeljanovs, Jeļena Sulojeva ; recenzenti Jānis Ieviņš, Valentīna Urbāne; redaktore Anita Vēciņa ; vāka dizains Jekaterina Ribajeva] ; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Darba un civilās aizsardzības institūts. - Rīga : RTU Izdevniecība, 2014 - 21 lpp
- Darba aizsardzības speciālista rokasgrāmata. 1. grāmata, Darba aizsardzības sistēma, darba vides riska faktori / Jānis Saulītis, Jānis Ieviņš ; Eduarda Groševa zīmējumi, grāmatas un vāka dizains ; redaktors Guntis Kalns. Rīga : Zvaigzne ABC, [2022] 272 lpp. : ilustrācijas, shēmas, tabulas ; 25 cm ISBN 9789934312328 (iesiets)
- Fitzgerald, Robert W. Fire performance analysis for buildings / Robert W. Fitzgerald and Brian J. Meacham. Second edition. Chichester : Wiley, 2017. xxvi, 692 lpp. : ilustrācijas ; 25 cm ISBN 9781118657096 (iesiets).
- Fizikas praktikums : Tehniskās universitātes studentiem / Rīgas Tehniskā universitāte. Tehniskās fizikas institūts ; [sastādītāji: M. Jansone ... u.c.]. Trešais, pārstrādātais izdevums. Rīga : RTU, 2003. 171 lpp. : il., sh. ; 21 cm. ISBN 9984323552
- Gere, James M. Mechanics of materials / James M. Gere, Barry J. Goodno. 7th ed. Stamford, CT: Cengage Learning, c2009. xviii, 1002 lpp. : il. ; 24 cm. ISBN 9780495438076
- Goetsch, David L. Occupational Safety and Health for Technologists, Engineers, and

- Managers / David L. Goetsch. Ninth edition. New York ; Boston : Pearson, 2019. xxi, 722 lpp. : ilustrācijas; 29 cm ISBN 9780134695815 (iesiets).
- Jānis Loja ; vāka māksliniece Iveta Bambere]. Rīga : Medicīnas apgāds, c2015 533, [1] lpp. : diagrammas, ilustrācijas, tabulas ; 25 cm. ISBN 9789984813813 (iesiets). Kaļķis V. Darba risku novērtēšana. Rīga, LU, 2009.g.
  - Jemeljanovs, Anatolijs, Objekta riska novērtēšana / A. Jemeljanovs, J. Ieviņš, J. Puškina. Rīga: Rīgas Tehniskā universitāte, 2007. 183 lpp. : il., diagr., sh., tab. ISBN 9789984393940
  - Kaļķis, Valdis, Arodveselība un riski darbā / Valdis Kaļķis, Ženija Roja, Henrijs Kaļķis ; [zinātniskie recenzenti: Andris Freivalds, Jānis Zaļkalns, Jānis Dundurs ; literārais redaktors
  - Kusiņš, Juris Civilā aizsardzība : mācību līdzeklis / Juris Kusiņš, Gunta Kļava. [Mārupe] : Drukātava, c2011. 377 lpp. : il., tab., veidlapas ; 21 cm. ISBN 9789984853314
  - Kusiņš, Juris Degšanas procesi : mācību līdzeklis civilajā aizsardzībā / Juris Kusiņš. [Rīga] : Juris Kusiņš, ©2015 178 lpp. : ilustrācijas, tabulas ; 21 cm. ISBN 9789934143854 (brošēts). Scientific Protocols for Fire Investigation, Second Edition (John J. Lentini). 2012.
  - Laboratorijas darbi ķīmijā : tehnisko augstskolu studentiem / sast J. Kreicberga, V. Kampars ; Rīgas Tehniskā universitāte. Rīga : Rīgas Tehniskā universitāte, 2002. 112 lpp. : il.
  - Malahova, J., Jemeljanovs, V. Civilā aizsardzība (Civilās aizsardzības sistēma). 1.daļa. Rīga: Rīgas Tehniskā Universitāte, 2011. 68 lpp. ISBN978-9934-10-274-5.
  - Nešpors, Viktors, Mikroekonomikas teorijas pamati : mācību grāmata / Viktors Nešpors ; [recenzenti: Juris Saulītis, Uldis Kamols ; atbildīgā par izdevumu Anita Vēciņa ; literārā redaktore Silvija Minkevica ; vāka dizains: Eduards Lapsa]. Rīga : RTU izdevniecība, 2015 244 lpp. : il., tab. ; 25 cm. ISBN 9789934106514 (iesiets).
  - Occupational and environmental safety and health / editors: Pedro M. Arezes [un vēl 8 redaktori]. Cham : Springer, 2019. xvi, 805 lpp. : ilustrācijas ; 24 cm. Studies in systems, decision and control ; vol. 202 . ISBN 9783030147297
  - Roja, Ženija, Cilvēkfaktors un ergonomika darbā : zinātniskā monogrāfija / Ženija Roja un Henrijs Kaļķis ; zinātniskie recenzenti: Andris Freivalds, Jānis Zaļkalns, Jānis Dundurs ; literārā redaktore Sarma Cire ; vāka māksliniece Ieva Parramore. Rīga : Latvijas Ergonomikas biedrība, 2020. 294 lpp. : ilustrācijas, shēmas, tabulas ; 26 cm ISBN 9789934231209 (iesiets).
  - Safety at work / edited by John Channing. 8th edition. London :New York ; Routledge, Taylor & Francis Group, 2014. xxviii, 1031 lpp. : il. ; 25 cm. ISBN 9780415656962
  - Stranks, Jeremy Health and safety at work : an essential guide for managers / Jeremy Stranks. 10th ed. London : KoganPage, ©2016. xiv, 328 lpp. : ilustrācijas. ISBN 9780749478179
  - Šenfelde, Maija, Makroekonomika / Maija Šenfelde ; [izdevumu sagatavojušas: M. Šenfelde, G. Blagova] ; Rīgas Tehniskā universitāte. Tautsaimniecības un reģionālās ekonomikas institūts. izdevums. Rīga : RTU izdevniecība, c2014. 245 lpp. : il., graf., tab. ; 21 cm. ISBN 9789934105234
  - Uzdevumu krājums vispārīgajā fizikā / Rīgas Tehniskā universitāte. Tehniskās fizikas institūts ; [sastādītāji: J. Blūms ... [u.c.]]. , pārstr. un papild. izd. / A. Ozola redakcijā. Rīga : RTU Izdevniecība, 2006. 272, [2] lpp. : il. ; 21 cm. ISBN 9984329836
  - Vasiļevska, Daina, Kvalitātes nodrošināšanas vadība / Daina Vasiļevska ; recenzenti: Dr.oec. Kārlis Ketners, Dr.oec. Jeļena Malahova ; literārā redaktore Anita Rudziša. Rīga : Juridiskā koledža, 2017. 233 lpp. : diagrammas, shēmas, tabulas ; 21 cm ISBN 9789934871900 (brošēts). Scott, Michael Lee, Programming language pragmatics / Michael L. Scott. 4th edition. Waltham, MA : Morgan Kaufmann, an imprint of Elsevier, [2016] xxxii, 956 lpp. : ilustrācijas ; 23 cm ISBN 9780124104099 (brošēts). Kokars, V. Vispārīgā ķīmija. Rīga: RTU, MLKF, 2009, 286 lpp.
  - Ziemelis, Valdis, Elektrodrošība : mācību grāmata / V. Ziemelis ; Rīgas Tehniskā universitāte.

Darba un civilās aizsardzības institūts. Darba un civilās aizsardzības katedra. [2., papild. izd.]  
Rīga : RTU Izdevniecība, 2008. 234 lpp. : il. ; 21 cm. ISBN 9984322262

Students also have access to the ILCP Methodology Room, where they can consult statistical materials, books, conference materials, course guides, etc.

Investments have been made in developing and improving information technology facilities. Each teaching staff member of the faculty has a workstation equipped with a computer connected to the internet, and laptops are provided as required.

Overall, the resources and facilities of the study programme are adequate to meet its needs. The continuous improvement and equipping of teaching laboratories is a positive development.

**3.3.2. Assessment of the study provision and scientific base support, including the resources provided within the framework of cooperation with other science institutes and higher education institutions (applicable to doctoral study programmes) (if applicable).**

**3.3.3. Indicate data on the available funding for the corresponding study programme, its funding sources and their use for the development of the study programme. Provide information on the costs per one student within this study programme, indicating the items included in the cost calculation and the percentage distribution of funding between the specified items. The minimum number of students in the study programme in order to ensure the profitability of the study programme (indicating separately the information on each language, type and form of the study programme implementation).**

Information on the principles and methodology for allocating the funds is provided in section 2.3.1 of the report.

The Professional Bachelor's study programme "Safety Engineering" is financed from the state budget, as well as from students' tuition fees or from natural and legal persons. Students may use study and student loans in accordance with the procedure established by the Cabinet of Ministers.

The tuition fee for individuals in the Professional Bachelor programme was EUR 1,650 per year in the 2014/2015 academic year and EUR 2,600 in the 2021/2022 academic year (see figure below).



<b>Academic year</b>	<b>Annual tuition fee for studies, EUR</b>
2014/2015	1650
2015/2016	
2016/2017	
2017/2018	1700
2018/2019	2300
2019/2020	2350
2020/2021	2400
2021/2022	2550
2022/2023	2600

The financial resource structure of the study programme consists of state budget funding and local student tuition fees, which make up the total funding of the study programme and from which the per-student cost of the study programme is derived. The structure of the study programme's financial resources is given in the figure below:

	<b>Academic year</b>	<b>Programme grant</b>	<b>Tuition fee for the programme, EUR</b>	<b>Total funding for the programme, EUR</b>	<b>Costs per 1 student, EUR</b>
<b><i>Safety Engineering</i></b> – <b>Professional Bachelor</b>	2013/2014 academic year	0	7886	7886	3866
	2014/2015 academic year	25 696	4 909	30 604	3866
	2015/2016 academic year	86421,12	8579,01	95000,13	5599,06
	2016/2017 academic year	117693,15	10190	127883,15	5599,06
	2017/2018 academic year	124878,45	12696,74	137575,19	5851,99
	2018/2019 academic year	130111,56	12025	142136,56	6125,74
	2019/2020 academic year	223099,20	5815	228914,20	6379,72
	2020/2021 academic year	181747,54	3,500	185247,54	6463,38
	2021/2022 academic year	182625,48	3575,00	186200,48	6846,46

From the given information it can be concluded that the state grant for the study programme has increased from the academic year 2013/2014 to 2019/2020 and stabilised from 2020/2021, which can be justified by the changes in the labour market. The amount of tuition fee funding tends to decrease at the end of the reporting period, which can be explained by the economic and demographic situation in the country, as well as a significant increase in tuition fees starting from the 2018/2019 academic year. The cost per student has increased during the reporting period, which is explained by a gradual increase in the overall costs of RTU due to objective reasons (increase in laboratory equipment costs, utility costs, increase in building maintenance, repair and construction costs, etc.).

The available funding is used for the implementation of the study programme and for its development. Every year, funds are allocated for the purchase of literature in the library, the development and maintenance of information systems related to the study process, the improvement of the study material and technical base (see Section 3.3.1), and the involvement of highly qualified specialists as guest lecturers in the study process. During the emergency, the learning process was delivered remotely, mainly using MS Teams, Zoom, WebEx platforms. RTU provided all teaching staff with the possibility to use them by purchasing full licence packages.

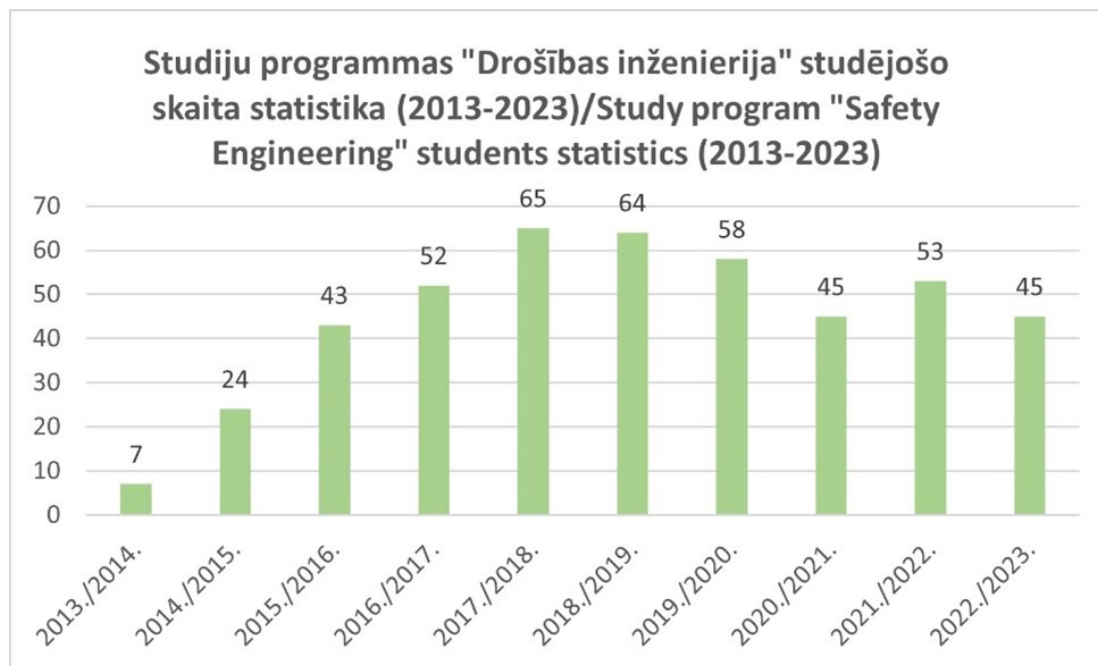
Information on the breakdown of funding between cost headings is provided in the Annex "Funding

by Positions" to paragraph 2.3.1 of the self-assessment report.

The percentage distribution of funding between the identified cost items is in line with the requirements for the implementation of the study programme. Taking into account the fact that the study process is dynamic, the mechanism of the RTU financial management system gives the possibility, according to the real situation, to change its distribution among the cost items within the limits of the study programme funding in accordance with the legislation of the Republic of Latvia and the procedure established by RTU.

For full-time in-presence students, **the minimum number of students in the programme** is 19 students **to ensure the cost-effectiveness of the study programme.**

The figure below shows the number of students by academic year during the reporting period.



In the **first academic year** of the reporting period (2013/2014), the study programme was new and not yet well-known among potential students, and was funded solely by fees paid by individuals and legal entities. However, the number of students enrolled in the programme in all subsequent years is high enough to make the programme profitable.

The number of students reflected in the table fully **ensures the cost-effectiveness of the study programme**, given that the minimum number of students in the study programme is 19 students, while the average number of students per academic year during the reporting period is 45.6 students.

### 3.4. Teaching Staff

**3.4.1. 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.**

32 elected teaching staff (59% of them with a doctor degree) are involved in the implementation of the study program - 4 professors, 4 associate professors, 5 lead researchers, 2 researcher, 3 practical assistant professor, 5 assistant professors, 5 lecturers and 4 research assistants.

The overall evaluation of the academic staff is reflected in the information and CVs of the teaching staff provided in Section 2.3.7 of the Report on the Field of Study and its annexes. This emphasises the relevance of the qualifications and competences of the academic staff involved in the study programme to the specific nature of the study courses.

During the reporting period, the elected academic staff involved in the implementation of the study programme participated in a total of several academic conferences and seminars. They have also participated in 98 scientific conferences and made presentations at 228 international scientific conferences. They have published around 1683 articles in international scientific journals and conference proceedings, and have been on roughly 79 mobility trips. A total of around 7365 academic hours spent in professional development and training seminars (including hospitality) and supervised approximately 1028 final theses.

The selection of teaching staff is related to their scientific and pedagogical work experience, areas of scientific research and achieved results, taking into account the specifics of the study programme and study courses.

**Professor Jānis Ieviņš**, Director of the Institute, holds a PhD in economics. He carries out scientific research, participates in international conferences, seminars and courses. He is the author of numerous publications on the following topics: factors affecting the quality of the working environment, modern trends in disaster management, occupational health and safety issues, innovations in construction waste management, etc. As an expert of the Latvian Council of Science, he works in the field of Life Sciences - Earth Sciences, Physical Geography and Environmental Sciences. Jānis Ieviņš is a member of the Commission of the Employers' Confederation of Latvia. Has supervised 4 doctoral theses. During the reporting period, he worked on international projects and national research projects, both as a manager and as an executor. He is a member of the RTU Senate, the Academic Assembly and the Council of Professors of Environmental Science. Continuously improves his knowledge through various training courses and seminars. The acquired knowledge is useful in the development and management of the courses "Basics of Labour Protection", "Fundamentals of the Activities of Technogenic Environment Safety Organisations", "Working Environment Risk Prevention Methods" and others.

**Professor Vladimirs Jemeljanovs** holds a PhD in engineering. He is the author of numerous scientific publications on occupational safety, risk management and fire safety. He is an expert in the Latvian Association of Power and Energy Engineers. During the reporting period, he worked on 6 international projects and 5 national research projects, both as a manager and as an executor. He is active in various organisations and commissions. Examples include the Latvian Firefighting Association, the Latvian Association of Electrical and Energy Engineers, the Latvian Association of Civil Engineers, LATAK (Latvian National Accreditation Bureau), the International Academy of Ecology and Life Protection Sciences, etc. Vladimirs Jemeljanovs is a member of the RTU Constituent Assembly. Has supervised 4 doctoral theses. Regularly participates in international and national methodological conferences, learning different teaching methods and their suitability for

different study needs.

**Associate Professor Jeļena Pundure** holds a PhD in Economics. The title of the dissertation thesis is "Methods for assessing the economic efficiency of fire safety systems in Latvia". Author of more than 20 publications during the reporting period. Participates in scientific conferences, international and national research projects. Jeļena Pundure is an expert of the Latvian Council of Science in the social sciences - social and economic geography, economics and entrepreneurship, and in engineering and technology - environmental engineering and energy. She is an expert at the Quality Agency for Higher Education. Continuously improves his knowledge through various training courses and seminars. The acquired knowledge is useful in the development and management of the courses "Civil Defence", "Evaluation and Reduction of Industrial Emergency Risks", "Object Risk Assessment" and others.

**Docent Mihails Urbans** holds a Master's degree in Occupational Safety and a PhD in Management Science. The title of the doctoral thesis is "Methodology for assessing economic and environmental losses at hazardous sites". He carries out scientific research, participates in international conferences, seminars and courses. He has participated in the international project "Development of a common environmental risk management plan for the cities of Jelgava and Šiauliai". As part of this project, 6 increased hazards objects were subject to technogenic risk assessment. The results of the research contribute to the development and management of the study courses "Evaluation and Reduction of Industrial Emergency Risks", "Object Risk Assessment" and "Management and Simulation of Emergency Situations", among others.

**Study programme director Associate Professor Māris Ziemelis** holds a PhD in the field of civil engineering in the sub-discipline of heat, gas and water engineering systems. The research results obtained in the dissertation "Increasing the efficiency of fire fighting with water" are successfully used in the work with students. In addition to his academic work at the university, Māris Ziemelis is a civil protection engineer at AS Latvenergo, as well as active in the Latvian Firefighting Association and the Latvian Association of Civil Engineers. Māris Ziemelis has many years of experience in management positions in the State Fire and Rescue Service, as well as several years of teaching experience as Deputy Director of the College (Head of the Training Department) at the Fire Safety and Civil Protection College of the Ministry of the Interior of Latvia. Many years of teaching and professional activity ensure knowledge of current issues in the field and practical application in work with students. He has developed and teaches the courses "Fire Safety of Construction and Design" and "Fire Safety of Construction and Design (Study Project)".

**Docent (Practical) Jānis Bērziņš** holds a Master's degree in Engineering. He has been Director of the State Labour Inspectorate for more than 10 years, Head of the Labour Technical Inspectorate of the Industrial Complex in the Main Technical Supervision Administration, Labour Technical Inspector and Head of the Labour Protection Department in the Latvian Republican Council of Trade Unions. For more than 18 years he has been a member of the Board of the Latvian Association of Occupational Safety Specialists. He has worked as an expert at the Centre for Quality Assessment in Higher Education. In his 17 years of teaching experience, he has developed and supervised more than 10 study courses, as well as dozens of final theses. He has participated in several academic and scientific conferences, presented papers and published several scientific articles.

**Associate Professor Valentīna Urbāne** is a lecturer with more than 35 years of teaching experience. Participation in scientific conferences and publications helps to keep the study content up-to-date and to keep abreast of the latest trends in the development of occupational health and safety systems in various industrial sectors. The acquired PhD degree in Chemistry provides knowledge in the development and management of courses such as "Occupational Safety and Environmental Protection", "Basics of Labour Protection", "Industrial Waste Management", "Safety

in the Use of Hazardous Substances" and others. Her expertise helps students to navigate occupational health and safety guidelines when working with hazardous substances, carry out risk assessments and work with risk assessment methods, and predict the potential hazard of a new substance.

**Lecturer Inese Vilcāne** has a Master's degree in occupational health and safety and is currently pursuing her PhD studies. She works as a sector expert in occupational safety and health at the National Content and Education Centre and as a sector expert in occupational safety and health at the State Education Quality Service, is a board member of the Latvian Association of Occupational Safety Specialists and a member of the Latvian Ergonomics Society. During the reporting period, she participated in several scientific conferences and published several articles in international scientific journals and conference proceedings (including WoS and Scopus). The professional knowledge accumulated during many years of work experience is useful in the development and publication of scientific articles, as well as in the development and supervision of final theses in the study courses Working Environment Risk Prevention Methods and Labour Protection and Safety.

In order to ensure the quality of the study programme content and the competitiveness of the graduates in the labour market, the teaching staff involved in the implementation of the programme regularly improve their professional and academic knowledge at various seminars, national and international conferences, in scientific and research work (see Appendix "Science\_Achievements of Staff"), and by engaging in various projects and contractual works. Information on the lecturers involved in the study programme and their relevance to the courses taught is presented in the annexes "Basic information on the lecturers involved in the implementation of the study field" and "Biographies of lecturers".

The staff involved in the study programme actively benefit from international cooperation and mobility programmes, including the Erasmus+ programme (see Annexes "Izejošā mobilitāte Erasmus mācībspēki/Outgoing mobility Erasmus Staff" and "Izejošā mobilitāte mācībspēki CITS/Outgoing mobility Staff OTHER "). The latest knowledge and practical experience gained through international cooperation and mobility are used to update and improve the study courses taught by the teaching staff and to better achieve the goals and objectives of the study programme.

The involvement of the study programme staff in various projects and other forms of cooperation with foreign partners and educational institutions (see 2.3 part Appendix "Biographies of the teaching staff") allows the study programme to attract both foreign guest lecturers and to conduct practical international intensive training programmes for students, in which representatives and experts from other countries also participate and share their practical experience and knowledge. This type of cooperation also promotes the mobility of students and the opportunity to learn new skills through exchange programmes or internships abroad. During mobility, teaching staff are often introduced to new teaching methods and techniques, which they then integrate into their studies. Students integrate the knowledge they gain from these exchanges and training sessions into their own research papers and present them at conferences. This allows students to develop research skills and competences.

Since the study programme's teaching staff members have extensive practical experience and work as experts not only in the Latvian Council of Sciences, but also in various organisations representing the field, they are called upon as competent contractors in various contract works related to the field, if necessary. The teaching staff members integrate the knowledge gained in these contract projects into scientific articles, which students can then use as sources of information on current developments in the field. The activities of teaching staff as experts are also reflected in the work of the various working groups that develop relevant legislation and standards. This allows the

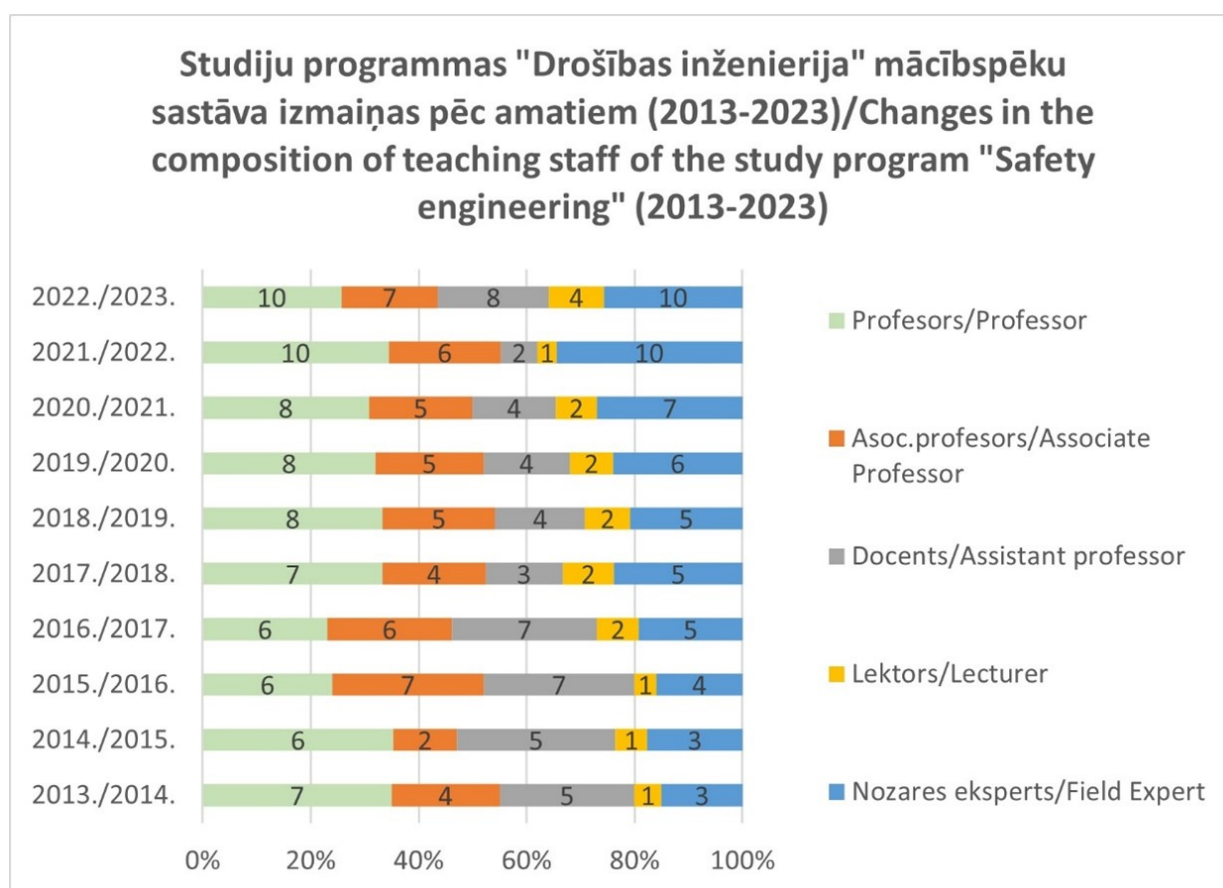
teaching staff to provide up-to-date and high-quality information on the normative basis on which students will have to base their professional activities in the future.

In general, it can be concluded that the competence, knowledge and practical work experience of the teaching staff involved in the implementation of the study programme allow to achieve the objectives of the study programme, to successfully implement the tasks to be performed and to ensure the successful achievement of the achievable results set for the programme.

### 3.4.2. 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 programme is delivered by both academics and highly qualified industry experts. Student surveys show that they value the involvement of experts in the field. Information on the teaching staff is presented in the 2.3. part annex "Basic information on the teaching staff involved in the implementation of the field of study".

The figure "Changes in the composition of teaching staff of the study programme "Safety Engineering" (2013-2023)" below presents information on changes in the composition of teaching staff of the study programme "Safety Engineering" (2013-2023) by position.



In the vast majority of cases, changes in the composition of the teaching staff are linked to changes in the content of the study programme. In some cases, changes in teaching staff have been made due to the death of a faculty member or termination of employment with RTU. As can be seen from the information summarised for the reporting period, the number of professors has increased: since the 2021/2022 academic year there are ten professors participating in the programme (in previous

years the number of professors varied between 6 and 8), while the number of associate professors has increased only slightly and currently there are seven. The number of docents has increased - currently there are eight docents involved in the programme, which is the highest number of docents to date. The number of lecturers has also increased, from 1 to 2 in the previous academic year to four in the academic year 2022/2023. It should also be noted that since the 2013/2014 academic year, the number of experts in the field has increased significantly from 3 in the 2013/2014 academic year to 10 in the 2021/2022 academic year. The increase in the number of experts in the field is an indicator that the programme development takes into account the students' wishes for more involvement of experts and representatives of the field in the teaching of the courses, as expressed by the students in the questionnaires. Thus, it ensures that the programme is implemented by a wide range of teaching staff members and that students receive a wide range of information on the theoretical and practical aspects of the sector.

The figure above shows that, in line with the suggestions made in the students' questionnaires and the fact that this is a Professional Bachelor's study programme, highly qualified academic staff, industry specialists and experts are involved in the teaching process, thus bringing the programme content as close as possible to the specifics and topicalities of the industry.

Another positive aspect of the generational change of the programme's teaching staff is the tendency to attract former graduates of study programmes to the teaching profession. An example of such continuity is Mihails Urbāns, who, after graduating from the "Occupational Safety" programme and obtaining a Professional Master's degree, continued his studies in a doctoral programme, successfully defended his doctoral thesis and has now joined the faculty of the Institute of Labour and Civil Protection as an docent and researcher, and is currently teaching the course "Safety and Risk Assessment of Technological Processes" of CKP. Lecturer Inese Vilcāne has also graduated from the master's professional study programme "Occupational Safety" and is currently studying for a doctorate, working at ILCP as a lecturer and giving lectures to students of the study programme "Safety Engineering" in the study course "Safety and Risk Assessment of Technological Processes" of 4 CP. Guna Bazone also graduated from the Professional Master's study programme "Occupational Safety" and is currently studying for a PhD and is presenting the 2CP course "Industrial Waste Management".

**3.4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of 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 or peer-reviewed monographs may be additionally specified. Information on the teaching staff included in the database of experts of the Latvian Council of Science in the relevant field of science (total number, name of the lecturer, field of science in which the teaching staff has the status of an expert and expiration date of the Latvian Council of Science expert) (if applicable).**

**3.4.4. 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).**

**3.4.5. 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 programme and 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).**

Cooperation between teaching staff within the study programme takes place both during the semester when teaching study courses and when planning and developing changes and developments necessary to update the study programme. To ensure the interconnectedness of the course content, the programme conducts an annual course audit, as well as various seminars where the programme staff familiarise themselves with the course topics, teaching methods and discuss improvements. Daily communication in the teaching environment is both formal (weekly meetings of the Institute, weekly operational meetings of the Faculty, etc.) and informal (individual face-to-face meetings, telephone communication, etc.). Courses are regularly updated and improved based on both student suggestions and industry trends. The teaching staff members involved in the programme collaborate within the courses of study to ensure that the courses of study are linked to the objectives and professional qualification requirements of the programme of study. For example, study programme staff have developed a number of guidelines for both study projects and internships in collaboration with each other. Professor J. Ieviņš, docent J. Bērziņš, professor V. Jemeljanovs, associate professor V. Urbāne and lecturer J. Bartušauskis have jointly developed "Methodological Instructions on the Organisation, Implementation and Defence of the Specialisation Internship in the Professional Bachelor's Study Programme "Safety Engineering"". Whereas, professor J. Ieviņš, docent J. Bērziņš, associate professor J. Pundure, associate professor V. Urbāne and lecturer J. Bartušauskis have jointly developed "Methodological Instructions on the Organisation, Implementation and Defence of the Pre-Diploma Internship in the Professional Bachelor's Study Programme "Safety Engineering"". Within the study project "Fire Protection and Prevention (course project)" professor V. Jemeljanovs and associate professor J. Pundure jointly developed methodological instructions on planning, development and defence of the study project, etc.

Throughout the semester, when implementing study courses, meetings and methodological sessions of the teaching staff are held to discuss the topics of study courses and necessary improvements in the study content in order to agree on topics, directions, responsibilities and compliance with regulatory requirements. All teaching staff members involved in the course of study are involved in the process of coordinating the courses of study to ensure that the topics covered in the programme of study do not overlap and are continuously improved and updated in collaboration with the professionals involved in the field. For example, by reviewing and updating the study programme in relation to the new occupational standard, as well as taking into account the results of the student and graduate questionnaires, the Director of the Study Programme together with the implementing teaching staff developed new study courses "Work Equipment Safety and Supervision" of 5 CP and "Safety and Risk Assessment of Technological Processes" of 5 CP. In the compulsory and restricted elective part, study courses are divided into thematic blocks, which are coordinated so that they do not overlap. The mechanisms for collaboration vary between

the teaching staff - meetings, individual face-to-face meetings, remote meetings or a combined version where some meet in person and some join interactively via Zoom or MS Teams. This ensures that issues related to the study process and its improvement are discussed promptly, the topics taught in the study courses are in line with the programme objectives and the learning outcomes of the study courses are integrated into the overall learning outcomes of the programme, taking into account different work schedules and workloads. The participation of the Study Programme Director in weekly departmental meetings allows to receive up-to-date information and to maintain the compliance of the study programme content and achievable results with the strategic goals of the faculty and RTU. Cooperation between teaching staff takes place both within a given course of study, through collaboration between the responsible teaching staff and industry professionals, and between courses of study with related themes requiring the study of similar topics, at different levels of understanding, as well as in the process of developing final theses.

An analysis of the ratio of students to teaching staff within the study programme shows that in the academic year 2022/2023 the ratio of elected teaching staff to students is approximately 1:3, while the ratio of professionals to students is approximately 1:5.

# Annexes

III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme	Safety_Engineering_ENG_diploma and diploma supplement.pdf	Drošības inženierija_IV_diploms ar pielikumu.pdf
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (table) (if applicable)		
Statistics on the students in the reporting period	5.pielikums_Annex_5_Statistikas dati par studējošajiem_statistical data on students_DI.pdf	5.pielikums_Annex_5_Statistikas dati par studējošajiem_statistical data on students_DI.pdf
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard	6.pielikums_Annex_6_atbilstiba valsts izglītības standartam_compliance with the national education standard.pdf	6.pielikums_Annex_6_atbilstiba valsts izglītības standartam_compliance with the national education standard.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (if applicable)	7.pielikums_7_Annex_Studiju programmas atbilstība profesijas standartam_Study programme compliance with Professional standard.pdf	7.pielikums_7_Annex_Studiju programmas atbilstība profesijas standartam_Study programme compliance with Professional standard.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	Studiju programmas atbilstība nozares specifiskajam normatīvajam regulējumam_Compliance of study programme with the sector-specific regulatory framework .pdf	Studiju programmas atbilstība nozares specifiskajam normatīvajam regulējumam_Compliance of study programme with the sector-specific regulatory framework .pdf
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8.pielikums_Annex_8_Kartēšana_Mapping.pdf	8.pielikums_Annex_8_Kartēšana_Mapping.pdf
The curriculum of the study programme (for each type and form of the implementation of the study programme)	9.pielikums_Annex_9_Studiju kursu plānojums_Course plan.pdf	9.pielikums_Annex_9_Studiju kursu plānojums_Course plan.pdf
Descriptions of the study courses/ modules	Annex_10_Study courses_Safety Engineering.pdf	10.pielikums_Studiju kursu_Drošības inženierija.pdf
Description of the organisation of the Internship of the students (if applicable)	Internship_Management_Procedure.pdf	Prakses_organizēšanas_kartība.pdf
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		
Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		

# Fire Safety and Civil Protection (44862)

Study field	<i>Internal Security and Civil Protection</i>
ProcedureStudyProgram.Name	<i>Fire Safety and Civil Protection</i>
Education classification code	<i>44862</i>
Type of the study programme	<i>Second level professional higher education study programme (after first level professional study programme)</i>
Name of the study programme director	<i>Vladimirs</i>
Surname of the study programme director	<i>Jemeljanovs</i>
E-mail of the study programme director	<i>vladimirs.jemeljanovs@rtu.lv</i>
Title of the study programme director	<i>Doktors</i>
Phone of the study programme director	<i>+371 29475029</i>
Goal of the study programme	<i>The aim of the study programme is to provide first level professional higher education in fire safety and civil protection in order to provide a set of theoretical knowledge and practical skills corresponding to the professional standard and requirements of the first level of professional higher education, allowing to start professional activity as a fire safety and civil protection engineer.</i>
Tasks of the study programme	<i>The objectives of the study programme are to provide students with the knowledge required for the professional qualification of Fire Safety and Civil Protection Engineer:</i> <i>- to provide knowledge of the organisation of fire safety and civil protection systems, the monitoring of fire safety and civil protection measures and risk assessment.</i> <i>- to provide knowledge of fire safety and civil protection systems and the development of packages of measures for the successful elimination of fires and accidents, rescue of people and protection of the environment.</i> <i>-to provide knowledge of disaster management and civil protection training, monitoring compliance with fire safety and civil protection requirements laid down in legislation,</i> <i>- to provide knowledge on the assessment and management of fire and technogenic emergency risks, applying general principles of fire safety and civil protection and engineering solutions.</i>

Results of the study programme	<p>1. Able to develop fire safety measures and civil protection plan, analyse compliance with fire safety and civil protection requirements in objects and develop measures for their improvement, analyse civil protection systems in the object, threats and their management, develop action plans and organise their implementation in fire and civil protection response measures in objects, identify factors affecting the quality of operation of building engineering systems (in the field of ventilation, heat, gas and water technology) and risks affecting fire safety in the facility, to determine preventive measures corresponding to quality risks.</p> <p>2. Able to perform control of the requirements of fire safety and civil protection laid down in regulatory acts, carry out compliance checks on construction sites, ensure the requirements laid down in fire safety and civil protection regulatory acts and control their implementation, evaluate and argue criminal liability, administrative violations of legal norms in the fields of fire safety, management and labour protection, perform administrative and the administrative violation process, perform procedural actions in case of challenge and appeal, analyse the state of fire safety and civil protection, and, based on this analysis, plan and organise fire safety prevention and disaster management measures, make proposals in the development of drafts of regulatory acts regulating fire fighting, fire safety and civil protection.</p> <p>3. Able to perform off-site disaster management, assess and improve the organisation of the site's integrated safety system, cooperate with fire and rescue service organisations, perform risk analysis and assessment, perform off-site disaster management, assess and improve the organisation of the site's integrated safety system, cooperate with fire and rescue service organisations, perform risk analysis and assessment.</p> <p>4. Able to conduct training in the field of civil defence, prepare and conduct fire safety and civil defence exercises according to levels, types of events and objectives.</p> <p>5. Able to apply professional activities in the implementation and compliance with legal, communication, labour and environmental protection measures, communicate in the national language and foreign languages, including using professional terminology, know and apply labour and environmental protection requirements, comply with information data security principles, engage in research processes.</p>
Final examination upon the completion of the study programme	State examination

## Study programme forms

### Part time studies - 2 years - latvian

Study type and form	Part time studies
Duration in full years	2
Duration in month	0
Language	latvian
Amount (CP)	60

Admission requirements (in English)	<i>Short cycle professional higher education and fifth level professional qualification "Technician of fire safety and civil protection" or comparable 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>Fire safety and civil protection engineer</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

#### **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>Short cycle professional higher education and fifth level professional qualification "Technician of fire safety and civil protection" or comparable 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>Fire safety and civil protection engineer</i>

#### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### 3.1. Indicators Describing the Study Programme

**3.1.1. Description and analysis of changes in the parameters of the study programme made since the issuance of the previous accreditation form of the study field or issuance of the study programme license, if the study programme is not included on the accreditation form of the study field, including changes planned within the evaluation procedure of the study field evaluation procedure.**

During the reporting period, the study programme was implemented in accordance with the professional standard "Fire Safety and Civil Protection Engineer" approved at the meeting of the Tripartite Cooperation Sub-Council for Professional Education and Employment on 18 February 2009. In accordance with the procedure set out in Article 10 of the Cabinet of Ministers Regulation No.633 "Procedure for Development of Occupational Standard, Professional Qualification Requirements (if no occupational standard is approved for an occupation) and Sectoral Qualification Framework", in 2022 the professional standard was updated and at the moment the draft of professional qualification requirements has been submitted for consideration to the Tripartite Cooperation Sub-Council for Professional Education and Employment (see Appendix "Draft Occupational Standard for Fire Safety and Civil Protection Engineer" and "On Harmonisation of the Draft Professional Standard").

Draft requirements for Professional qualifications 11.10.2020 have been co-ordinated in the Tripartite Cooperation Sub-Council for Professional Education and Employment (minutes of the meeting No. 5). The agreed project will be published on the [https://registri.visc.gov.lv/profizglitiba/nks\\_stand\\_saraks\\_mk\\_not\\_626.shtml](https://registri.visc.gov.lv/profizglitiba/nks_stand_saraks_mk_not_626.shtml) (only Latvian) website within 3-4 weeks of project reconciliation in the Tripartite Cooperation Sub-Council for Professional Education and Employment.

In February 2023, it was decided to amend the requirements under "Previous education required" to read as follows: short-cycle professional higher education and 5th level professional qualification "Fire and civil protection technician".

No other changes were made to the parameters of the study programme during the reporting period.

**3.1.2. Analysis and assessment of the study programme compliance with the study field. Analysis of the interrelation between the code of the study programme, the degree, professional qualification/professional qualification requirements or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements. Description of the duration and scope of the implementation of the study programme (including different options of the study programme implementation) and evaluation of its usefulness.**

The first cycle study programme of professional higher education "Fire Safety and Civil Protection" corresponds to the study field "Internal Security and Civil Protection". The courses cover areas such as protection of persons and property and fire safety and civil protection. The programme has

interdisciplinary components. From the point of view of statistical classification (Regulation of the Cabinet of Ministers of the Republic of Latvia No.322 "Regulations on Latvian Classification of Education", effective from 16.06.2017) the study programme is in the thematic area of Civil and Military Protection Services (Protection of Persons and Property - code 861, ISCED-2013 classification: 1032) and subject areas not elsewhere classified (Programme groups not elsewhere classified - code 999, ISCED-2013 classification: 9999) .

The professional qualification "Fire Safety and Civil Protection Engineer" and the corresponding profession code 2149 40 to be awarded to graduates of the study programme comply with the Cabinet of Ministers Regulation No 264 "Regulations on the Classification of Professions, Basic Tasks and Qualification Requirements Corresponding to the Profession".

The aim of the study programme is to provide a systematic and coherent education in the fields of internal security and civil protection. The objectives of the study programme "Fire Safety and Civil Protection" are subordinate to the objectives of the field of study, forming a coherent framework while reflecting the specificities of the study programme. The aim of the study programme "Fire Safety and Civil Protection " is to provide theoretical knowledge and practical skills in order to prepare specialists with knowledge, skills and abilities in fire safety and civil protection, drafting and implementing emergency plans, calculating and assessing various risks, as well as making appropriate decisions within their competence.

This studio programme is **unique and the only one** in the Baltic region. Graduates of the study programme are in demand from the State Fire Service in accordance with the special cooperation agreement signed between **RTU and the State Fire Service**, and 15-20 fire safety and civil protection engineers need to be trained each year.

Graduates of the study programme "Fire Safety and Civil Protection " obtain a professional qualification diploma - qualification title "Fire Safety and Civil Protection Engineer" (profession code 2149 40). In turn, when analysing the compliance of the study programme "Fire Safety and Civil Protection " with the national education standard (see Annex 6), it can be concluded that:

- The objectives of the study programme are in line with the requirements set out in the national education standard;
- The scope of the study programme and its structural distribution are in line with the national education standards.
- The content of the study programme is in line with the requirements set out in the national education standard; The main parts of the programme are study courses, an internship outside the educational institution and a national examination - the diploma project;
- The principles of programme assessment are in line with the national education standards;
- Positive achievements are summed up;
- Assessment is compulsory at the end of each course;
- A summative assessment made up of several types of knowledge tests;
- Openness and clarity of requirements - the examination requirements are available to all interested persons at the study programme administration or teaching staff, are explained at the beginning of the study course (first lesson), and are placed in the ORTUS e-learning system together with the study course description;
- Variety of forms of assessment - independent work, control work, seminars, lectures, examinations, defence of internship work, defence of diploma project, etc.

Students are only enrolled in this programme **only after graduating from the College of Fire and Civil Protection and qualifying as a Fire and Civil Protection Technician**. The



admission procedure is regulated by the RTU Admission Rules. Thus, the students' knowledge at the beginning of the programme and the selection criteria set by RTU are sufficient to achieve the planned study results in the expected time and quality.

The tasks of the study programme are to provide operational disaster management and action at the scene; to manage fire fighting and rescue operations; to carry out fire safety monitoring and building documentation analysis and expertise; to organise civil protection measures; to investigate and assess fire conditions; to train personnel within the scope of their competence. The objectives of the study programme are designed to educate students to attain the sixth level professional qualification of fire safety and civil protection engineer, which is equivalent to LQF level 6, as well as to facilitate their competitiveness in the changing conditions of the working environment and the labour market.

The first cycle professional higher education study programme "Fire Safety and Civil Protection " has defined 5 achievable study outcomes that correspond to the job duties, tasks and competences defined in the professional standard "Fire Safety and Civil Protection Engineer". In turn, the objectives and deliverables of the study programme, as set out in the course descriptions, are closely linked to the objectives and deliverables of the overall programme, and the course content is subordinated to the achievement of the study programme deliverables (see Annex 8). The analysis of the course descriptions of the study programme shows that their outcomes ensure the achievement of the study programme outcomes. Each course of study includes knowledge and tasks that enable students to achieve the professional competences and knowledge required by the professional standard, develop their research skills, debating, critical thinking and analysis competences. Every year, a course content audit is carried out to monitor and update course content, teaching methods and learning outcomes.

The occupational standard "Fire Safety and Civil Protection Engineer" agreed at the meeting of the Tripartite Cooperation Sub-Council for Professional Education and Employment on 18 February 2009 was updated in 2022 and **11.10.2023. the draft occupational qualification requirements have been co-ordinated** in the Tripartite Cooperation Sub-Council for Professional Education and Employment (minutes of the meeting No. 5). The agreed project will be published on the [https://registri.visc.gov.lv/profizglitiba/nks\\_stand\\_saraks\\_mk\\_not\\_626.shtml](https://registri.visc.gov.lv/profizglitiba/nks_stand_saraks_mk_not_626.shtml) (only Latvian) website within 3-4 weeks of project reconciliation in the Tripartite Sub-Council for Professional Training and Employment. Consequently, following publication, further changes and additions to the course descriptions will be made at a later stage, if necessary.

The study programme is completed by a national examination. The state examination is organised in accordance with the regulations, which include the preparation and defence of a diploma project. The topics of the diploma project shall be related to current problems in civil protection and fire safety. The diploma project solves problems of fire safety, firefighting, rescue and civil protection, professionally using the knowledge, skills and abilities acquired. The diploma project is publicly defended in front of the State Examination Commission, which, according to the requirements, includes highly qualified specialists from the SFRS. The diploma project can only be defended if the student's knowledge and skills in the theoretical and specialised areas of the field have been successfully assessed. A State Examination Commission (SEC) is organised to defend the diploma project. The State Examination Commission for professional study programmes shall be composed of the head of the Commission and at least four members. The head of the Commission and at least half of the members of the Commission shall be representatives of the SFRS whose main place of work is not RTU. The State Examination Commission must be composed of at least two PhDs in the relevant field of science, and the composition of the Commission must be approved by the Rector of RTU. The Chairperson of the SEC may not be a staff member of RTU. The SEC collectively assesses

students' knowledge, skills and competence on a 10-point scale. At the end of the professional study programme "Fire Safety and Civil Protection ", the first cycle of professional higher education in fire safety and civil protection and the qualification of fire safety and civil protection engineer are obtained, which certifies that the skills and competences specified in the professional qualification requirements have been acquired as a result.

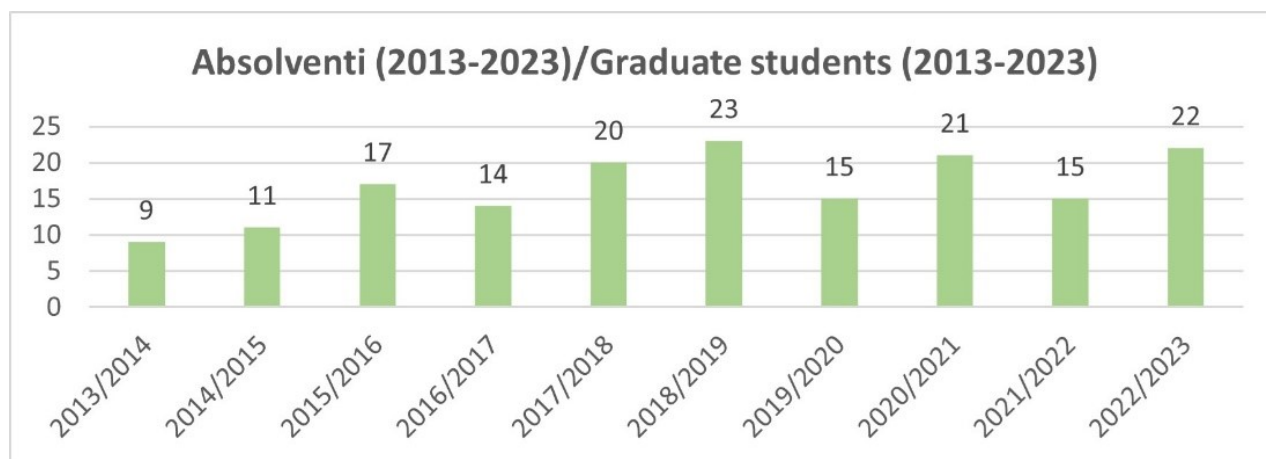
### **3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.**

The civil protection system is a component of the national security system, which is the basis for the effective and comprehensive functioning of the national defence system, ensuring coordination between civil and military institutions, coordination of resources and harmonisation of capabilities. A civil protection system must provide for the basic needs of the population, whether in peace, war, military invasion or the threat thereof. The training of fire safety and civil protection specialists is a very important part of civil protection, which is based on normative documents such as the "Law on Civil Protection and Disaster Management" (in force from 01.10.2016), the "Law on Fire Safety and Fire Fighting" (in force from 01.01.2003) and the "National Civil Protection Plan" (in force from 26.08.2020). The implementation of the study programme and the training of fire safety and civil protection engineers allow to provide the SFRS with highly qualified personnel, which in turn is an important component of the civil protection system. The economic and social rationale of the study programme is therefore closely intertwined with the country's development and national interests.

The content of the study programme is designed in accordance with the requirements of the professional qualification "Fire Safety and Civil Protection Engineer" (professional code - 2149 40). The assessment of the relevance of the study programme to the requirements of the professional qualification is given in Annex 7. It can be seen that for each level of knowledge defined in the requirements of the professional qualifications (understanding or application), study courses have been designed with appropriate content and topics. As the study programme only admits students who have previously completed a short-cycle professional higher education and the fifth level professional qualification "Fire Safety and Civil Protection Technician", the competences defined in the professional qualification requirements for "Fire Safety and Civil Protection Engineer" are aligned with the professional qualification requirements for "Fire Safety and Civil Protection Technician", so that, so that the professional competences defined in the two professional qualification requirements are mutually reinforcing, complement the knowledge acquired in the previous cycle and form a coherent and coherent set of competences for the first cycle of higher professional education. Therefore, it can be concluded that the first cycle study programme "Fire Safety and Civil Protection " meets the requirements of the professional qualification.

The specific admission rules of the study programme mean that students already have prior knowledge and work experience in the field, as students matriculated in parallel to their studies work in the State Fire and Rescue Service (hereinafter - SFRS).

The topicality of the study programme, compliance with professional qualification requirements and compliance with labour market requirements is also demonstrated by the fact that, in accordance with the agreements concluded between RTU and SFRS, all graduates work in SFRS, some of them already hold high positions in SFRS departments (8 graduates are SFRS department chiefs). For example, the Deputy Chief of the SFRS is a 2008 graduate.



Looking at the graduate statistics, the highest number of graduates was in the 2018/2019 academic year (23 graduates) and the lowest in the 2013/2014 academic year (9 graduates). The low number of graduates in the 2013/2014 academic year is due to the fact that some of the students had an academic year, as a result of which only 9 out of all students renewed and completed their studies.

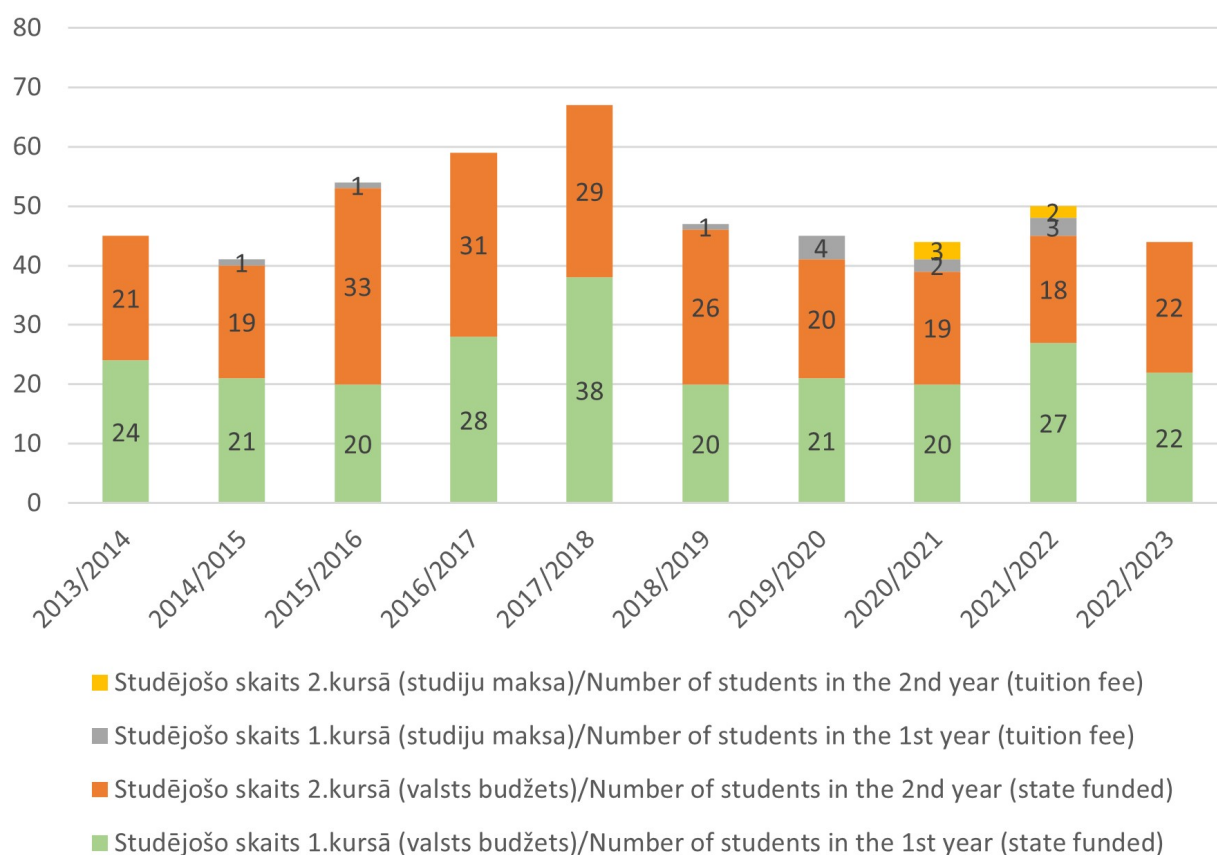
In total, 167 students graduated from the study programme in the reporting period, who continued their studies mainly in SFRS departments (about 97%) or elsewhere (about 3%). For example, 2020 graduates are currently working in the Riga SFRS, Procurement and Assurance Department (Inspector), Latgale Region Administration Fire Safety Monitoring and civil protection Department (Inspector), Latgale Region Administration (Zilupe Post Commander), Latgale Region Administration (Vīlaka Post Commander). The 2021 graduates are currently working in the Zemgale Region Administration of the State Fire Service (Viesīte Post Commander), the Zemgale Region Administration Fire Safety Monitoring and Civil Protection Department (inspector), Riga State Fire Service (deputy chief), etc.

#### **3.1.4. 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 into different study forms, types, and languages.**

The first cycle professional higher education study programme "Fire Safety and Civil Protection" is implemented as a full-time in-presence study programme, where studies are conducted only in Latvian, both with state funding and with funding from individuals and legal entities. During the reporting period, the number of part-time extramural applications for the study programme was below the minimum number of students set by the RTU to make the part-time extramural option cost effective.

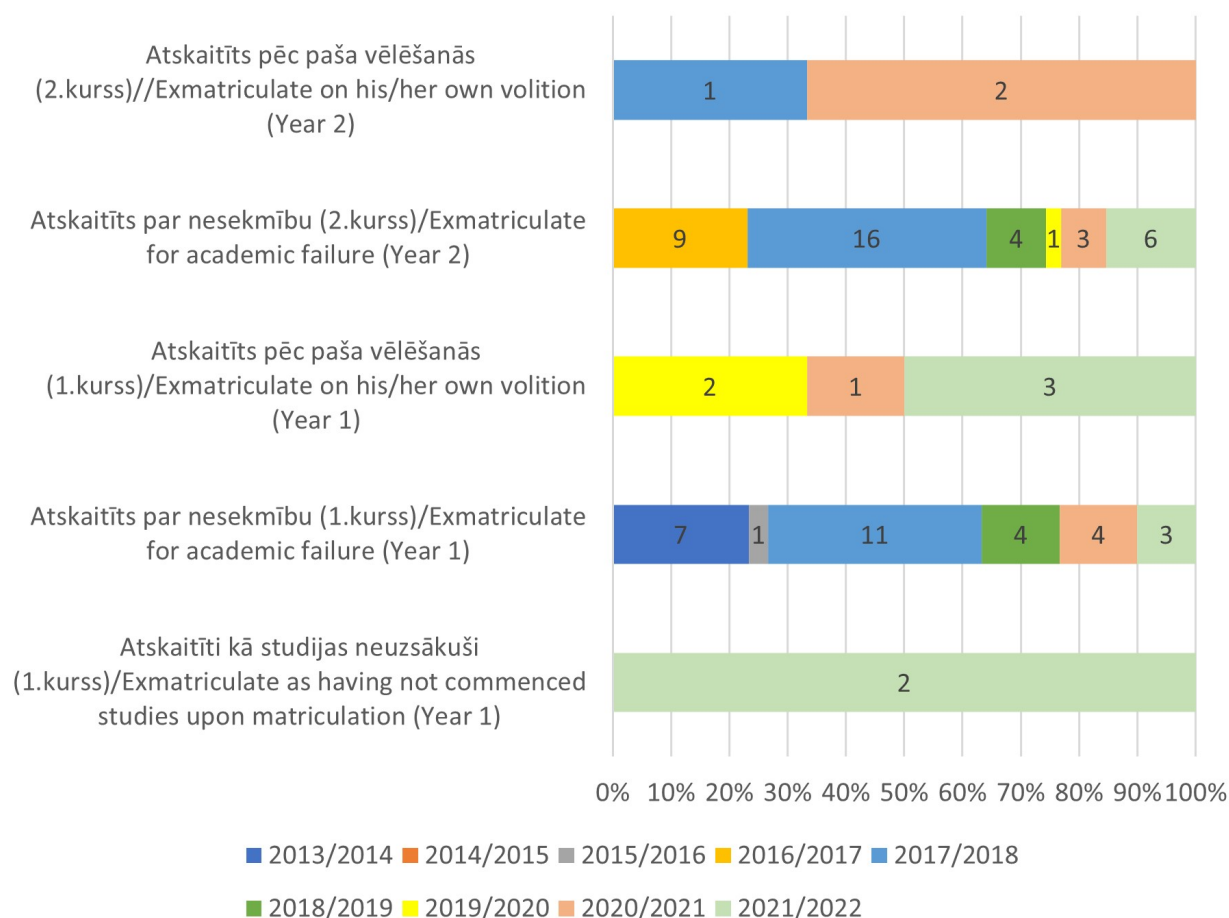
The breakdown of student numbers by funding source is shown in the figure below.

**Studējošo skaits pēc finansējuma avotiem studiju programmā  
"Ugunsdrošība un civilā aizsardzība" (2013-2023)/Number of  
students according to the financial source in the study program "Fire  
safety and civil protection" (2013-2023)**



Analysing the dynamics of the number of students, it can be concluded that the highest number of students on state funding in the 1st year was in the academic year 2017/2018 - 38 students. This is due to the increase in the number of budget places. The lowest number of students in the 1st year with state funding is observed in the academic years 2015/2016, 2018/2019 and 2020/2021 - 20 students each. This is due to the fact that the number of budget places in the study programme was lower in those years due to the level of funding provided by the state. The highest number of students in the 1st year studying at personal expense was in the academic year 2019/2020 - 4 students, while in the academic years 2013/2014, 2016/2017, 2017/2018 and 2022/2023 there were no fee-paying students at all. This is because in those years there were more budget places, which made it possible for all students to study without having to invest their own money.

### Studējošo atbirums studiju programmā "Ugunsdrošība un civilā aizsardzība" (2013-2023)/Students dropout in the study program "Fire safety and civil protection" (2013-2023)



Analysing the reasons for dropout of students (see the above figure "Students dropout in the study programme "Fire Safety and Civil Protection" (2013-2022) ), it can be concluded that in the reporting period the largest share (12.98%) in the 1st year are those who dropped out for academic failure and 2.59% are those who dropped out of their own free will, while 0.43% drop out as not having started their studies. The high number of dropouts in the 2017/2018 academic year is due to the fact that all students from previous academic years who had previously taken a number of study breaks and had never renewed to continue their studies were dropped in that year. The main reasons for academic failure in 1st year are students missing classes for personal reasons and failing to complete course requirements in time to obtain a passing grade. The reasons for voluntary dropout are mainly of personal nature (illness, change in private life, etc.). In the 2nd year, the highest dropout rate in the reporting period was for poor performance (17,64%) and the second reason for dropout was those who left their studies voluntarily (1.35%). In this case, the reasons for dropping out are mainly the same as before, but the reasons for dropping out of their own volition are the same as for the first year.

#### 3.1.5. Substantiation of the development of the joint study programme and description and evaluation of the choice of partner universities, including information on the development and implementation of the joint study programme (if applicable).

## **3.2. The Content of Studies and Implementation Thereof**

**3.2.1. Analysis of the content of the study programme. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators with the aims of the study course/ module and the aims and intended outcomes of the study programme. Assessment of the relevance of the content of the study courses/ modules and compliance with the needs of the relevant industry, labour market and with the trends in science on how and whether the content of the study courses/ modules is updated in line with the development trends of the relevant industry, labour market, and science.**

The study programme complies with the national education standards (see Annex 6). As a result of the study programme, students acquire the necessary knowledge, skills and competences according to the sixth level of professional qualification (PQL 6) and the sixth level of the Latvian Qualifications Framework (LQF 6), which correspond to the requirements for the professional qualification of Fire Safety and Civil Protection Engineer (see Annex 7). The compliance of the study programme with the specific regulatory framework of the relevant sector is shown in the Annex "Specifiskais normatīvais regulējums\_Specific Regulatory Framework". The curriculum plan for the full-time, in-presence mode of delivery is shown in Annex 9. The course descriptions of the study programme are given in Annex 10. The mapping of study courses to achieve the study outcomes of the study programme is given in Annex 8.

The first cycle professional higher education or professional master's study programme "Fire Safety and Civil Protection " is developed in accordance with the Law on Higher Education of the Republic of Latvia, in accordance with the Classification of Education of the Republic of Latvia, in accordance with the Cabinet of Ministers Regulation No 305 of 21 June 2023 "Regulations on the state standard of professional higher education" and the decision "On Approval of Riga Technical University Unified Requirements for Study Programmes in New Wording" adopted at the RTU Senate meeting of 30 March 2020.

Scope of the programme - the scope of the study programme and its structural distribution are in line with the national education standards. The programme and courses are reflected in credits.

During the reporting period the study programme is conducted only in Latvian in full-time, in-presence form.

The full-time in-presence and part-time extramural implementation variants of the study programme shall comply with the requirements of Cabinet of Ministers Regulations No.305 „Regulations on the state standard of professional higher education”, because the content and scope of the study programme are identical in both variants, the difference is only in the study course design implemented in each variant in accordance with the information indicated in Annex 9 “Study course plan”. Taking into account that students in this programme are mainly employees of the State Fire Service structures with different work schedules, the different options for the implementation of the study programme allow students to choose the type of study that is best

suited to them.

The structure of the study programme consists of: 24CP(36ECTS) of Part A "Compulsory Study Courses", 4CP(6ECTS) of Part B "Restricted Elective Study Courses", 2CP(3ECTS) of Part C "Free Elective Study Courses", 20CP(30ECTS) of internship and 10CP(15ECTS) of diploma project. Total scope of the programme is 60 CP(90ECTS).

The content of the study programme is constantly updated and improved in line with the latest trends in fire safety and civil protection, as well as the situation on the labour market and its requirements. To ensure that the programme remains relevant, it is regularly revised by replacing existing courses or by adding new courses of relevance. The information included in the study courses follows from the study course objectives and the results to be achieved, which, in turn, follow from the objective and the results to be achieved of the program. The connection is clearly visible in the mapping of the study program (Annex 8). Each course of study has a defined objective and deliverables. The knowledge, skills and competences of all study courses are linked and subordinated to the objectives and outcomes of the study programme.

The study programme ensures that the content of study courses is up-to-date and relevant to the needs of the industry, the labour market and the latest scientific knowledge by regularly (at least once a semester) reviewing and analysing the suggestions of students, teaching staff and other stakeholders.

In order to ensure the quality of the programme, changes were made to the content and structure of the programme during the reporting period, which were necessitated by the recommendations gathered in the questionnaire results, as well as by changes in the regulatory enactments and the occupational standard.

On 3 May 2022, in order to improve and update the content of the programme, changes were made in Part A, which resulted in the change of the part from 24CP(36ECTS) to 30CP(45ECTS) and the inclusion of study courses "Innovative Product Development and Entrepreneurship" in 4CP(6ECTS) and "Safety of Technological Processes" in 2CP(3ECTS) scope. Part D "Internship" has been changed from 26 CP(39ECTS) to 20 CP(30ECTS).

On 20 June, 2022, in order to reduce the fragmentation of study courses, changes were made to the study programme, as a result of which the study courses "Managing the Safety of Work and the Work Environment" 4CP(6ECTS), "Fire Safety and Civil Protection Legislation" 4CP(6ECTS), "Disaster Modelling and Management" 3CP(4,5ECTS) were merged and improved in Part A; the new courses replaced the courses "Fundamentals of the Activities of Technogenic Environment Safety Organisations" 2CP(3ECTS), "Labour Protection and Safety" 2CP(3ECTS), "Fire Safety Supervision and Control" 2CP(3ECTS), "Fire Investigation" 2CP(3ECTS) and "Management and Simulation of Emergency Situations" 3CP(4,5ECTS).

In December 2022, the number of credits in Part A of the study programme was reduced from 30CP(45ECTS) to 24CP(36ECTS) in order to create a restricted elective (Part B) of 4CP(6ECTS) and a free elective Part C of 2CP(3ECTS). In accordance with the new requirements for the professional qualification "Fire Safety and Civil Protection Engineer", the study courses "Fundamentals of Fire Security and Civil Defence Law" 3CP(4,5ECTS), "Object Risk Assessment" 3CP(4,5ECTS) were excluded from Part A, "Disaster Modelling and Management" 3CP(4,5ECTS), "Safe Working Practice with Dangerous Substances" 3CP(4,5ECTS) and "Managing the Safety of Work and the Work Environment" 4CP(6ECTS), which were replaced by the upgraded study courses "Fire Safety and Civil Protection Legislation" 4CP(6ECTS), "Object Risk Assessment and Disaster Modelling and Management" 4CP(6ECTS) and "Object Risk Assessment and Disaster Modelling (study project) of 2CP(3ECTS) scope. The limited elective study courses (Part B) in the amount of 4 CP(6ECTS)

included the study courses "Managing the Safety of Work and the Work Environment" in the amount of 4 CP(6ECTS) and "Civil Protection System Planning" in the amount of 4 CP(6ECTS).

The study programme is developed, taking into account the recommendations and requirements of students, graduates and employers. For example, a suggestion from graduates was that more practical activities, experiments in laboratories or facilities were needed. In response to this recommendation, the teaching staff have included more practical classes in study courses, as well as more use of the fire safety laboratory in the study process, where many students conduct practical experiments in the process of developing their final theses. The following was also suggested as recommendation: *"Update information in some subjects"*; This recommendation is taken into account by instructing all teaching staff to update their courses and their content at the beginning of each academic year. The following was also mentioned under recommendations: *"Place all the material used in ORTUS"*. This recommendation is also taken into account by the teaching staff and students are provided with the possibility to access all necessary study material for each course in the e-learning environment throughout their studies. Further implementation of the recommendations gathered from students, graduates and employers is given in Annex of Paragraph 2.2.4 " *Analysis and evaluation of the results of student, graduate and employer surveys and their use in improving the content and quality of studies, giving examples for each of the programmes included in the field of study.*

Before the start of the semester, each member of teaching staff should review the course description, assessing the current course objectives and expected learning outcomes, and review the proposed teaching materials and literature sources, making sure that the literature is up-to-date and that the latest research in the field is presented. To ensure complementarity and non-overlapping of courses, the structure of the study programme is regularly discussed by the teaching staff. As a result of this collaboration, a number of changes were made to the content and structure of the study programme and the number of low-credit courses was reduced by combining or replacing them with higher-credit courses.

Practical and theoretical research play an important role. Students develop their theses and dissertations on topical issues in the field by researching and analysing scientific and professional literature in libraries and international databases. Students use the acquired knowledge and insights both during their studies and during their internship when analysing issues related to fire safety and civil protection. Students present their research results at the annual RTU Students' Scientific Conference and summarise them in diploma projects, which are publicly defended at the end of their studies.

**3.2.2. In the 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. In the 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 (if applicable).**

**3.2.3. Assessment of the study programme including the study course/ module implementation methods by indicating what the methods are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study**



**programme. In the case of a joint study programme, or in case the study programme is implemented in a foreign language or in the form of distance learning, describe in detail the methods used to deliver such a study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The first cycle study programme of professional higher education "Fire Safety and Civil Protection" provides for studying courses that ensure the achievement of professional competence in lectures, practical classes, practical laboratory work and literature studies. In order to ensure the achievement of the goals and objectives set for the programme in the best possible quality, the study programme includes theoretical and professional specialisation study courses in the field - general study courses in the field, which form the basis for acquiring specialised knowledge and practical skills during further studies, as well as ensure the acquisition of practical skills necessary for professional activity. The didactic concept of the study programme is based on the use of the latest and most advanced teaching methods. It provides for the development and organisation of study content that ensures the sequential and in-depth acquisition of the knowledge provided for in the study programme and is oriented towards real practical examples and problem solving, in-depth study of major theoretical and practical issues of fire safety and civil protection. This includes stimulating learning methods, as well as collaboration between students, lecturers and internship supervisors. The study programme also uses group work, situation analysis, seminars, discussions and study excursions to reinforce what has been learned. For example, within the study course "Fundamentals of Fire Security and Civil Defence Law" practical work is carried out at the SFRS Civil Protection Operational Control Centre, the Civil Alarm and Notification System Control Centre, the 112 Single Line Operation Centre and the Firefighting Museum, where students learn about the implementation of the requirements of the regulatory enactments in the activities of the SFRS. In the framework of the study course "Fire Investigation" practical classes are organised at the Forensic Department of the State Police, during which students are introduced to the methods of expert work.

Guest lectures by various guest lecturers, experts in the field and representatives of companies are regularly held within the framework of the study courses implemented by the study programme.

For example, students listened to a guest lecturer from the Rochester Institute of Technology (USA) on "Principles of Risk Management: Assessing Risk & Asking the Right" un "Experiences & Intuitions in Effective Fire Prevention & in Effective Fire Fighting & Minimizing the Risk of Fires n the U.S". Within the study course "Management and Simulation of Emergency Situations", the Deputy Chief of the State Fire and Rescue Service of the Ministry of the Interior gave a guest lecture on "Interinstitutional Cooperation in Emergency Situations, Guidelines and Conditions". Within the study course "Fire Security of Construction and Design" a guest lecture "Fire safety requirements and fire safety inspections at construction sites" was given by a lecturer from SIA Inspecta (Kiwi) Latvia. Within the study course "Fire Safety Monitoring and Fire Assessment" a lecture "Fire safety expertise project documentation" was given by the Chairman of the Board of the Latvian Fire Safety Association. In the framework of the same study course, a guest lecture "Modern fire protection systems - sprays, capsules, pulses" was given by the leading specialist of SIA "BSafety".

The study programme is implemented in full-time, in-presence form, in Latvian, in compliance with the requirements formulated in the regulatory enactments, the basic principles of study organisation established by RTU and all the requirements of the study courses. The course descriptions of the study programme define the set of relevant knowledge, skills and competences and their assessment system, and define the study outcomes for the achievement of which credits

are awarded. The procedure for the assessment of students' knowledge, skills and competences is determined by the decision of the Senate of 30 May 2022 "On Approval of the new version of the Regulations for the Assessment of Study Results", which complies with the basic principles and procedures for the assessment of education defined in the Cabinet of Ministers Regulations No 305 "Regulations on the state standard of professional higher education" at the relevant study level. The summative marking system is used to assess student achievement, where the final mark is made up of several components.

In full-time in-presence and part-time extramural studies the content and scope of the study programme are identical, the difference being limited to the design of study courses carried out in each option in accordance with the information set out in Annex 9 "Study course plan".

Full-time, in-presence study corresponds to 40 CPs(60ECTS) per academic year and 40 academic hours of work per study week, which is 1 CP(1,5ECTS). Pedagogical methods of implementation of study courses, as well as evaluation methods are selected by the teaching staff responsible for the study course, according to the course content and study programme specifics, as well as the needs of the students.

As full-time students mostly have work experience, teaching methods such as lectures, practical work, group work, homework and research are used more, with different situations analysed and explained from both theoretical and practical perspectives. Emphasis in full-time in-presence study is placed on balanced distribution between contact hours and students' independent work, using both problem-based learning, situational analysis and the tutor's advisory role.

The programme is implemented using RTU's interactive e-learning environment, built on the Moodle platform, which is regularly used by students, academic staff and guest lecturers. The portal provides the student with access to all the up-to-date information during the study process. It provides access to current study courses (annotations, requirements for successful completion of the study course, lecture plan, lecture and practical materials, required literature, etc.), information on student's performance and passed study courses, current reports, library information, access to educational and scientific literature, access to databases, e-mail, etc. In the e-learning environment, teachers upload various tests and assignments for self-monitoring of the student's knowledge, and the system also allows for various midterm and final examinations. Teaching staff also post information about online lectures in the e-learning environment. This portal allows to communicate with any member of staff and, for current courses, also with fellow students. The portal has discussion forums, regular surveys on the content, quality and presentations of the teaching staff member who deliver the courses.

In academic matters, individual approach is ensured in accordance with the methodology approved by the Order of the Rector of RTU "On guidelines for planning the work of a teaching staff member", which stipulates that a teaching staff member must provide consultations for every 25 students in a lecture stream in the amount of 15% of the amount of lecture hours. In addition, there are separate consultation hours for supervising coursework and projects, internships and final projects. Pre-exam counselling is organised before the exams. If necessary, students can directly contact the lecturer outside the consultation hours by posting their questions in messages or in the relevant course forum in ORTUS, or by e-mail.

At the end of each semester of each study course, the course evaluations are recorded in the ORTUS system for the specific study course by teaching staff. The results of students' studies are analysed both in course group meetings with students and in meetings organised by the study programme administration.

ILCP provides teaching and methodological work: establishes and updates study subject

programmes, provides teaching of relevant study subjects, conducts and defends qualification theses and carries out other activities related to teaching, methodological and scientific work.

The study process is designed as an active, engaging process for students, including lectures, seminars, discussions, solving situations and practical tasks, individual and group work, including research work, visits to companies and field trips, internships, guest lectures by representatives of employers.

The results of the assessment of students' knowledge are discussed twice a year (at the end of each semester) at a meeting of the department, they are collected and evaluated by the study programme administration, and they serve as a basis for further improvement of the study process. Discussion and analysis of study results is carried out in cooperation with the teaching staff involved in the study programme.

Each course description contains a section on the skills and competences to be acquired in the course (see the Course Register in ORTUS). In line with the latest trends in fire safety and civil protection, students are required to develop study projects and analyse different situations that contribute to their problem-solving skills, working independently and/or individually. Students should also take note of the existing laws and regulations governing fire safety and civil protection in Latvia. Students always have the opportunity to express their views in dialogue and to share their professional experiences, thus explaining the issues at stake on the basis of examples and thus understanding the essence of the course.

The programme is completed by a state examination, which is graded according to a ten-point system and includes the defence of the diploma project. The criteria for the defence of the diploma project are:

- systematising, updating and extending theoretical and practical knowledge, individual experience and experience gained through study internship;
- independent analysis of educational and scientific literature, legislation and regulations relevant to the chosen specialty, mass media and other information sources, including in foreign languages;
- the problems to be investigated, which include individual and complex novelty elements, and the problem-solving skills to combine them with theoretical frameworks;
- analysis, systematisation and recommendations of current applied problems;
- developing and planning practical management and professional solutions;
- the ability to present research and practical results.

Students who have completed the programme and passed the state examination with a score of at least 4 (almost average) receive a diploma for the professional qualification "Fire Safety and Civil Protection Engineer".

For administrative matters, students are given the opportunity to meet with the programme management during office hours to resolve individual issues. In problematic situations, students are invited to discuss with the programme management. Information of an operational nature is posted on the website, messages are sent to students via the ORTUS system, and e-mail and telephone are used for individual communication. Regular meetings are organised between students and the programme director, giving students the opportunity to discuss and debate current issues. This helps to maximise the quality of the learning process by responding to student input.

The principles of student-centred education are also therefore taken into account throughout the entire study process, which are implemented as follows:

#### *1.Student involvement in the study process and content development*

RTU has developed procedures to provide students with feedback on the quality of the study process (questionnaires, regular student meetings with the programme director), thus students have the opportunity to influence their study process. Students are regularly involved in the evaluation of the quality of study programmes, participate in decision-making and advisory bodies, and organise meetings with the programme director to discuss the positives and negatives of the semester courses, as well as the competence, ability, attitude and quality of each member of the teaching staff. This gives students the opportunity to influence and contribute to improving the study process.

The University has appropriate procedures for the submission and resolution of student proposals and complaints [https://www.rtu.lv/writable/public\\_files/RTU\\_studeoso\\_priek\\_un\\_sudz\\_iesn\\_un\\_izsk\\_kart.pdf](https://www.rtu.lv/writable/public_files/RTU_studeoso_priek_un_sudz_iesn_un_izsk_kart.pdf). The complaints process is channelled through the Programme Director and the Head of Department, the Head of the Department of Studies or even the Vice-Rector of Studies, if necessary. In the first cycle of the professional higher education programme "Fire Safety and Civil Protection ", students first solve problems together with the programme director, thus reacting in time to the issues to be solved. This approach allows problems or disagreements to be resolved at an early stage and prevents problems from escalating.

## *2.Learning outcomes*

The programme's course grades and number of credits are linked to the learning outcomes. Students are informed about the learning outcomes of each course in the first lesson. The teaching staff relate the results of the course of study to the results of the study programme, as well as argue for the necessity of acquiring the information of this course in order to obtain the professional qualification of "Fire Safety and Civil Protection Engineer". Teaching staff of study courses take into account and respect the diversity of students and the diversity of their needs, using different ways of implementing the programme, according to the abilities of the students. At the end of the course, students evaluate the performance of each member of staff by completing a course evaluation questionnaire. Students of the study programme are also regularly included in the RTU Gold Fund <https://www.rtu.lv/lv/studentuserviss/karjeras-centrs-ssc/projekti-un-seminari/rtu-zelta-fonds>. The Golden Fund includes, in each academic year, the students who are the best graduates of that academic year. The Gold Fund Ceremony is a celebratory event that brings together the very best in a special atmosphere, while also fostering a sense of belonging to your university. During the reporting period, six graduates of the study programme "Fire Safety and Civil Protection " have joined the Golden Fund: Igors Rusanovs (2012/2013), Edijs Laterers (2013/2014), Vadims Jančevskis (2014/2015), Ksenija Bendzule-Zālīte (2015/2016), Aleksandrs Štefaņuks (2018/2019) un Vitālijs Kudrjavcevs (2019/2020). Taking into account that the total number of graduates included in the RTU Gold Fund in 2022 is 1194 graduates, the share of graduates of the study programme "Fire Safety and Civil Protection " in the Gold Fund only for the reporting period is approximately 0.5% of all graduates included in the RTU Gold Fund. This can be considered a good indicator, especially taking into account the relatively small number of students in the study programme in relation to other RTU study programmes, where the number of students tends to be several times higher.

## *3.Mobility*

In the implementation of the study programme, students have the opportunity to attend lectures given by lecturers from foreign universities, which allows the lecturers and students involved in the implementation of the programme to adopt good practices that can be shared with the guest lecturers. For example, in 2017 M. Radin was invited by the RTU Institute of Labour and Civil Protection as a guest lecturer from the USA (Rochester Institute of Tehnology), while on 7 May 2019 this guest lecturer was invited by the RTU Institute of Labour and Civil Protection to give seminars

"Introduction to risk management and applications of risk management" and "Applied risk analysis in effective fire prevention & in effective fire fighting". Also at the end of 2020, M. Radin from the USA (Rochester Institute of Technology) gave a guest lecture on "Principles of Risk Management: Assessing Risk & Asking the Right". Also in the spring semester of 2022, this guest lecturer gave a lecture on "Experiences & Intuitions in Effective Fire Prevention & in Effective Fire Fighting & Minimizing the Risk of Fires in the U.S."

Students and staff benefit from Erasmus and other mobility opportunities. For example, within the ERASMUS+ programme, from 01.11.2021 to 05.11.2021 the 1st year student of the study programme "Fire Safety and Civil Protection " (IID0)" participated in a five-day intensive training course at the Norwegian Arctic University within the activities of the international NEEDS project. In the framework of the international NEEDS project, an intensive training course was held at Laurea University (Finland) from 01.05.2022 to 07.05.2022, which was also attended by a 1st year student of the study programme "Fire Safety and Civil Protection ". Within the activities of the same international project, from 11.09.2022. to 17.09.2022 Latvia, as a cooperation partner and host country of the project, organised an intensive training week at the RTU Sports and Conference Centre "Ronīši", which was attended by 15 foreign students and one student of the 2nd year study programme "Fire Safety and Civil Protection ". A total of 18 students from the following countries took part in the intensive training week from 11.09.2022 to 17.09.2022 at RTU Conference and Sports Centre "Ronīši" as part of the NEEDS project: The intensive training process was coordinated by project partners from Latvia (Riga Technical University), Norway (The Arctic University of Norway), Finland (Laurea University of Applied Sciences), Poland (Main School of Fire Service), Sweden (Swedish Defence University) and Finland (Laurea University of Applied Sciences). The students were advised and lectured by project partners from Latvia (Riga Technical University), Norway (The Arctic University of Norway), Poland (Main School of Fire Service) and Sweden (Council of the Baltic Sea States). During the intensive training week that took place within the framework of the project, practitioners from Hamburg Fire and Rescue Service (Germany), Tallinn Municipal Police (Estonia), Lahti Municipal Police (Finland), State Fire and Rescue Service and Liepāja Municipal Police (Latvia) shared their practical experience with Latvian and foreign students and gave lectures.

The full student mobility is presented in the Annex "Statistikas dati par studējošo mobilitāti studiju virzienā\_Statistics on Student Outgoing Mobility in the Study Field", in Part II, and the mobility of teaching staff in the Annexes "Izejošā mobilitāte Erasmus mācībspēki\_Outgoing mobility Erasmus Staff" and "Izejošā mobilitāte mācībspēki CITS\_Outgoing mobility Staff OTHER".

#### *4.Social dimension*

The study process is flexible enough to allow students to combine their studies with work, family life and various extracurricular and social activities during their studies. This is also ensured by the fact that in-presence lectures are organised in the afternoons, as according to the results of alumni surveys and taking into account the specific nature of the programme, 100% of students work during their studies. The flexibility of the study process is also demonstrated by the fact that students actively implement different types of social dimensions both during and outside their studies at RTU. Graduates of the study programme have been repeatedly included not only in the RTU Golden Fund, but also actively participate in the RTU Student Council, participate in RTU sports events, sing in choirs, dance in dance groups, participate in the development and promotion of various informative seminars and educational materials, etc. For example, Vadims Jančevskis, who was included in the RTU Golden Fund in the academic year 2014/2015, was a member of the RTU folk dance ensemble "Vektors" and participant of the 16th "Gaudeamus" Song Festival in Vilnius, and has also taken part in the bowling tournament organized by RTU. Aleksandrs Štefaņuks, who is included in the RTU Golden Fund for the academic year 2018/2019, was a member of the Latvian

national team in the Baltic firefighting sport in 2017.

To ensure social accessibility at all levels, the study programme is taught in facilities that are accessible to people with reduced mobility. A student dormitory is available for students of the programme, if needed. It is also worth mentioning that the RTU library is open to students 24 hours a day, as well as on weekends.

### *5. Teaching and learning methods*

Pedagogical methods, teaching, learning and assessment methods are regularly assessed. For example, study projects are developed, group work takes place, and in some courses a method is used that allows students to assess and learn from each other and share their experiences with others. Guest lectures are also held on regular basis. Students have the possibility to receive individual counselling from teaching staff via ORTUS, email and telephone, as well as in-presence individual counselling if needed. The programme constantly reflects on improving the form and process of study. The changes are mainly focused on replacing the learning style with "teaching to learn" and integrating information technology into study process. For example, in the light of the remote learning experience during the pandemic, a Samsung Flip 3 interactive whiteboard was purchased in 2022 to make the learning process more efficient and up-to-date by providing an interactive learning experience and expanding the resources available to faculty to better integrate modern teaching and learning methods into the learning process.

Currently, special attention is paid to one of the most common methods of active study work - the analysis of situational tasks or situations (case studies), where the factual material of foreign and domestic companies is mainly used. It should be noted that the faculty has developed a series of situational exercises as part of the programmes.

### *6. Learning environment*

The programme involves collaboration between librarians and academic staff to improve teaching and learning. In the first year, students are introduced to the resources and databases available in the library. Teaching staff involved in the programme and students also have access to research and learning facilities with appropriate equipment. Both students and teaching staff can use the Bloomberg Laboratory, the Occupational Health Laboratory and the Fire and Civil Protection Laboratory for their research projects. For example, the study course "Facility Risk Assessment and Disaster Modelling and Management" uses the Bloomberg laboratory, where students learn how to use risk assessment software during lectures. Students use both the Occupational Safety and Health Laboratory and the Fire Safety and Civil Protection Laboratory in the process of developing their research projects, which have resulted in several diploma projects on topics such as "Extinguishing with foam blowing agents, surfactants and their mixtures with water to increase their effectiveness" (2017), "Improvement of methodological rules for water fire extinguishing systems" (2019), "Analysis and improvement of the effectiveness of the use of fire extinguishing aerosols" (2019), "Development and improvement of the requirements for standards for fire detection and alarm systems" (2021), "Improvement of the effectiveness of automatic fire extinguishing systems using fine-dispersion water" (2021), etc.

### *7. Competence development of academic staff*

ILCP training and qualification improvement is provided to the academic staff through various special courses or seminars in Latvia and abroad, participation in organisational and methodological work, participation in international projects, work of other organisations, practical work as consultants, as well as annual participation in conferences and methodological seminars organised by RTU and other higher education institutions. Lessons learned from further training and research are incorporated into teaching. For example, in the academic year 2021/2022 Jānis Ieviņš

underwent 200-hour academic staff internships at SIA "Milzu!" within the framework of the specific support objective SAM 8.2.2 "Strengthening academic staff of higher education institutions in areas of strategic specialisation" of the European Social Fund project "Strengthening academic staff of Riga Technical University in areas of strategic specialisation" No 8.2.2.0/18/A/017 under the activity programme "Growth and Employment". The insights gained during the internship were used to improve the content of the study programme courses. Any other form of training for elected academic staff in their field of activity is also supported.

A more detailed analysis of the professional development and competences of the academic staff involved in the implementation of the study programme is provided in Section 3.4.1.

#### *8.Extra-curricular activities of the students*

The programme management supports and encourages students to participate in student self-government, thus allowing students to develop their independence, giving them the opportunity to implement their ideas, as well as opportunities for additional learning outside lectures. Everyone in the programme is offered opportunities to get involved in extra-curricular activities (sports teams, dance groups, choirs, etc.). All this indicates an active extra-curricular life and extra-curricular opportunities for students.

Students are also involved in scientific work and research on topical issues in the field, participating in both local and international conferences.

Students' extra-curricular activities also include participation in activities that promote and educate the public on fire safety issues. For example, a 1st year student of the study programme educated 2nd-9th grade pupils about fire safety by giving an online lecture series "How to protect yourself and others from fire accidents" in several schools in different Latvian cities - Ogre, Babīte, Ādaži and Riga - between 07.03.2022 and 10.03.2022. Ksenija Bendzule-Zālīte, who was included in the RTU Golden Foundation for the academic year 2015/2016, has participated in the educational event "Safe Summer" for parents and children, as well as in the exhibition "Children's World" dedicated to safety issues and has organised a series of seminars "The Day of the Single Emergency Call Number 112".

From 2011 to 2014, the scientific journal "Safety of the Technogenic Environment" was published in 6 volumes. The collection included scientific articles reflecting contemporary technogenic environmental security issues in the context of new economic and global developments. The collection includes research results of Latvian and foreign scientists, academics, PhD students and students. The collection of scientific articles may be useful for specialists interested in technogenic environmental safety problems as a basic component of ecological safety, university teachers, students and PhD students. Since 2014, it has been decided to close the magazine for financial reasons. Now the publications are included in the journal "The Baltic Journal of Real Estate Economics and Construction Management" published by RTU IEVF Faculty in cooperation with two partner universities in the Baltic region - Tallinn University of Technology (Estonia) and Vilnius Gediminas Technical University (Lithuania) and in the scientific journal "Rural Sustainability Research" of Latvia University of Agriculture.

**3.2.4. If the study programme envisages an internship, describe the internship opportunities offered to students, provision and work organization, including whether the higher education institution/ college helps students to find an internship place. If the**

**study programme is implemented in a foreign language, provide information on how internship opportunities are provided in a foreign language, including for foreign students. To provide analysis and evaluation of the connection of the tasks set for students during the internship included in the study programme with the learning outcomes of the study programme (if applicable).**

Internship outside the educational institution is an integral part of professional programmes to be performed by students in accordance with the Regulation of the Cabinet of Ministers of the Republic of Latvia of 21 June 2023 No. 305 "Regulations on the state standard of professional higher education", Senate of RTU of 30 March 2020 (Minutes No.638), as amended: 21.11.2022 (Minutes No. 667, entered into force on 22.11.2022), Decision "On Approval of the New Wording of the Unified Requirements for Study Programmes of Riga Technical University" and Decision of the RTU Senate of 28 January 2019, Minutes No 626 "On Approval of the New Wording of the Procedure for Organisation of Internships at Riga Technical University". The internship is conducted in accordance with the regulations, the general rules of which have been established by the RTU Senate. In 2019, the Methodological Instructions on the organisation, implementation and defence of internships in the professional study programme "Fire Safety and Civil Protection " were developed (Discussed, approved and recommended for printing at the ILCP meeting on 28 June 2019, Minutes No.22000-10.3/1.), which were updated in 2022 due to changes in the professional qualification requirements.

Students studying a professional education programme need to combine theoretical knowledge with practice. The 1-year and 6-month study programme "Fire Safety and Civil Protection" includes an **internship of 20CP (30ECTS)**. Internships are provided in accordance with the mutual agreement between RTU and SFRS, but in case the student is not a person working in the SFRS structure, the student is provided with an internship at his/her workplace by concluding an appropriate agreement between RTU, the student and the company. If the student is not employed anywhere, RTU offers the assistance of a Student Career Support Specialist who can find a suitable internship placement, but this has not been the case in this study programme, as all students are employed due to the nature of the programme. The table below shows the distribution of student internship placements and the number of internship placements during the reporting period.

Place of internship	Number of trainees (2013-2023)
SFRS (State Fire and Rescue Service)	577
Air Force of the National Armed Forces	2
SIA "LEXEL FABRIKA"	1
SIA " <u>Rīgas nami</u> "	3
SIA " <u>Rīgas namu pārvaldnieks</u> "	1
SIA "SELS SYSTEMS"	3
College of Fire Safety and Civil Protection	2
State Police	2
VAS " <u>Starptautiskā lidosta "Rīga"</u> "	1

The aim and objectives of the internship are closely linked to the duties and tasks specified in the professional qualification requirements, which ensure the consolidation and application of



theoretical knowledge in practice. The internship supervisor provides feedback (completes a feedback form), in which he/she assesses the trainee's knowledge, theoretical preparation, communication skills, thus maintaining a continuous close link with the industry, thus creating the opportunity to develop and improve the study programme even more qualitatively and in line with the requirements of the labour market. The aim of the internship is achieved on the basis of the knowledge, skills and competences acquired. At the end of the internship, the student prepares an internship report, which is presented and defended, and evaluated by a ILCP committee chaired by an official of the State Fire and Rescue Service, taking into account feedback from the supervisor, the internship coordinator and the student's internship report, which is evaluated on a 10-point system.

The study programme also provides for the recognition of prior learning, professional experience and formal and informal education, which is a convenient and relatively simple procedure for students. When a student submits an application, accompanied by the required documents on previous similar studies and/or professional experience, these will be assessed. As a result of the assessment, students may have internship alignment of 20CP. All students are informed about this possibility at the very beginning of their studies in the 1st year. The internship supervisor, together with the programme director, also organises several meetings with students before the start of their first internship to reiterate the internship alignment options, procedure and requirements. For example, in the academic year 2021/2022, following the organisation of such meetings in the first cycle of the professional higher education study programme "Fire Safety and Civil Protection " a committee was established to assess the learning outcomes of two students' competences acquired outside formal education or through professional experience and their previous education. The committee evaluated the submitted documents and as a result, two first-year students were recognised for the results achieved in their professional experience, equivalent to 20CP(30ECTS) of internship.

The fact that the knowledge, skills and competences acquired in the study programme help students to achieve the aim of the internship is also confirmed by the internship evaluation, which shows that across all years of study 16% have received an evaluation of 6 points, 38% - 7 points, 35% - 8 points, 8% - 9 points and 1% - 10 points. Low internship ratings are mainly due to the fact that the trainee did not perform the internship tasks to a sufficiently high standard. On the other hand, trainees who have carried out extra duties at the internship site (e.g. attending international conferences related to the field, preparing applications for project competitions, etc. activities outside the internship tasks) have received an excellent internship rating.

The study material on the organisation of internships and the normative documents regulating the activities of the University are available on the RTU website, at the programme administration and in the ORTUS e-learning environment.

### **3.2.5. Evaluation and description of the promotion opportunities and the promotion process provided to the students of the doctoral study programme (if applicable).**

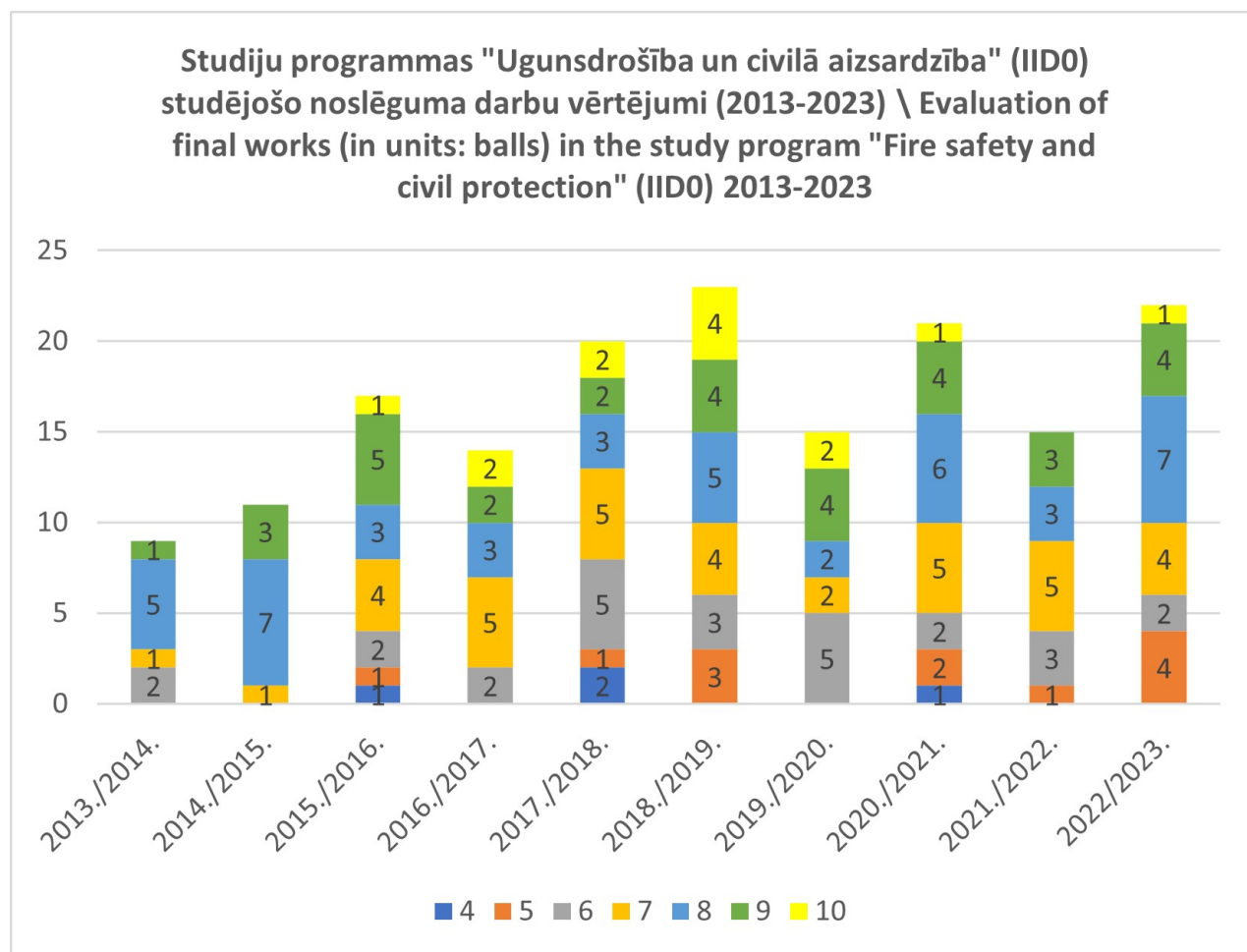
### **3.2.6. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the marks of the final theses.**

Given that students in this study programme are matriculated with prior education (Fire Safety and Civil Protection Technician) and work experience in the relevant field, this allows students to choose final thesis topics not only on current issues in the country, but also to develop final theses that are directly related to the improvement of the State Fire and Rescue Service (hereinafter - SFRS). Every year, before choosing the topics for the diploma projects, information is gathered from the SFRS on current research topics in the sector, which are then presented to the students.

At the end of the programme, students are required to produce a thesis project on a topical issue in civil protection or fire safety. The diploma project must contain elements of scientific creativity or innovation in practical application. It should reflect the novelty of the issues raised, as well as the systematisation of theoretical knowledge and experience, the analysis of the current applied problem, the analysis, development and implementation of practical solutions. The diploma project is publicly defended at a meeting of the State Examination Commission. The Commission operates in accordance with the regulations approved by the Senate of the University, its composition includes highly qualified specialists from the State Fire and Rescue Service, the Latvian Association of Civil Engineers, the Commission is chaired by the Chief of the State Fire and Rescue Service.

The state and final forms of the examinations provide evidence of professional competence based on the theory of the relevant scientific discipline.

Students formulate and develop the topics of their diploma project according to the qualification they are obtaining, which means that they write about various fire safety and civil protection issues, their improvement, which is necessarily supported in the practical part with substantiated proposals. The diploma projects state the topicality of the topic and analyse the sector being studied.



An analysis of all years of study shows that 8% of all graduates scored 10 (outstanding). 19% of graduates scored 9 (excellent), 26% scored 8 (very good), 22% scored 7 (good), 16% scored 6 (good), -7% scored 5 (average) and only 2% scored 4 (almost average) of the total number of graduates in the reference period. The aggregated evaluation data show that diploma project are of high quality and in line with the current trends in professional activity.

Looking at the final theses grades, the average grade per year is: 7.6 points in the academic year 2013/2014, 8.18 points in the academic year 2014/2015, 7.5 points in 2015/2016, 7.8 points in 2016/2017, 7 points in 2017/2018, 7.7 points in 2018/2019, 7.7 points in 2019/2020, 7.4 points in 2020/2021, 7.2 points in 2021/2022 and 7.3 points in 2022/2023.

The aggregated evaluation data show that diploma project are of high quality and in line with the current trends in professional activity.

The best final theses are on topics such as:

- "Methodologies, problems and solutions for calculating the consequences of industrial accidents" (2016);
- "Fire safety requirements for the construction and operation of car gas filling stations" (2017);
- "Improving the effectiveness of fire extinguishing agents, surfactants and their mixtures with water"(2017);
- "Administrative Offences Procedure and its Improvement in the State Fire and Rescue Service" (2018);
- "Evacuation of pre-school educational institutions" (2018);
- "Improving the methodology for disaster criteria determination" (2019);
- "Effectiveness of active lightning protection" (2019);
- "Development of recommendations for the content of the civil protection course at higher education institutions" (2019);
- "Establishment of boat launching sites on the Baltic Sea coast in the Republic of Latvia" (2019);
- "Improvement of lifeboat equipment for fire fighting on water" (2020);
- "Technical base for the State Fire and Rescue Service repairs: justification of the need and optimal possible solutions" (2020);
- "Analysis and improvement of equipment, special equipment and standards for fire-fighting and rescue" (2021).

From 2013 to 2023, 167 students have graduated from the programme, with an average grade of 7.5 in their final theses.

### **3.3. Resources and Provision of the Study Programme**

**3.3.1. 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.**

The general resources and facilities available to RTUs are given in the descriptions in Part II, Chapter 3, paragraphs 2.3.1 to 2.3.3. The specific resources required for the implementation of the study programme meet the conditions for the implementation of the study programme and contribute to the achievement of the study outcomes.

For the successful implementation of the study programme and to ensure the specific study objectives to be achieved, two teaching laboratories with teaching equipment (fire safety laboratory and occupational safety laboratory, which are continuously supplemented and improved) are available. The fire safety training laboratories are used for research work on improving the effectiveness of fire extinguishing with foaming agents, surfactants and their mixtures with water, which is used in practical work and in the writing of diploma projects.

The following equipment has been purchased to carry out laboratory work in the courses "Fire Investigation" and "Safety in the Use of Hazardous Substances": Optical heat detector and gas analyser PPE 3000 and other equipment. A training laboratory equipped with special facilities for practical training and analysis of fire-fighting performance. In 2017/2018, the laboratory was upgraded with new equipment to enable practical classes and laboratory work on the topic: Fire protection systems - fire detection and alarm systems.

In 2018/2019, the laboratory was updated with new equipment to enable practical classes and laboratory work on smoke extraction systems.

In 2019, the 3rd stage of the RTU IEVF ILCP training laboratory expansion was implemented - "Extension of the RTU IEVF ILCP training laboratory equipment functionality by integrating new components and their interaction with the existing automatic fire extinguishing system, fire detection and fire alarm system training stand". The establishment of a training laboratory on the basis of the ILCP Department has enabled a significant modernisation of the training process, as well as the creation of a more efficient system for training students to become modern fire safety specialists. The final 3rd stage included:

- Design;
- Manufacture and installation of automation/control devices for water pump control cabinet and electrical damper control cabinet for existing water sprinkler-drencher (SP) firefighting system;
- Installation of additional fire detection peripherals for automatic start-up of the SP, as well as status (control/start) signals to the fire alarm panel of the training stands via the automation elements of the control/execution cabinets to be installed.

Under concluded agreements with the State Fire and Rescue Service and the College of Fire Safety and Civil Protection, students use the facilities of these departments during internships or practical training.

RTU Research Library has a wide range of books and other information resources relevant to the study programme "Fire Safety and Civil Protection":

1. Assael, Marc J. Fires, explosions, and toxic gas dispersions : effects calculation and risk analysis / Marc J. Assael, Konstantinos E. Kakosimos. Boca Raton : CRC Press/Taylor & Francis, 2010. xvi, 333 lpp. : ilustrācijas ; 27 cm. ISBN 9781439826751 (hardcover)
2. Civilā aizsardzība : laboratorijas darbi / [sastādīja Vladimirs Jemeljanovs, Jeļena Sulojeva ; recenzenti Jānis Leviņš, Valentīna Urbāne; redaktore Anita Vēciņa ; vāka dizains Jekaterina Ribajeva] ; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Darbs un civilās aizsardzības institūts. - Rīga : RTU Izdevniecība, 2014 - 21 lpp

3. Evaluation of fire safety / D. Rasbash ... [et al.]. Chichester: John Wiley & Sons, 2004. XIII, 479 lpp. : il. ; 26 cm. ISBN 0471493821 (cloth)
4. Fitzgerald, Robert W. Fire performance analysis for buildings / Robert W. Fitzgerald and Brian J. Meacham. Second edition. Chichester : Wiley, 2017. xxvi, 692 lpp. : ilustrācijas ; 25 cm ISBN 9781118657096 (iesiets).
5. Hayden, E. Critical Infrastructure Risk Assessment: The Definitive Threat Identification and Threat Reduction Handbook. Rothstein Publishing. 2020.-340 lpp.  
<https://web-s-ebshost-com.resursi.rtu.lv/ehost/ebookviewer/ebook/ZTAwMHh3d19fMjU4MzMzOV9fQU41?sid=be68cc44-ca89-4272-b47f-653e1c376664@redis&vid=0&format=EB&rid=1>
6. Jānis Saulītis, Jānis Ieviņš. (2022). Darba aizsardzības speciālista rokasgrāmata.1.grāmata. Darba aizsardzības sistēma, darba vides riska faktori. Rīga: Apgāds Zvaigzne ABC. 190.lpp.
7. Jemeljanovs, Anatolijs, Objekta riska novērtēšana / A. Jemeljanovs, J. Ieviņš, J. Puškina. Rīga : Rīgas Tehniskā universitāte, 2007. 183 lpp. : il., diagr., sh., tab. ISBN 9789984393940
8. Kusiņš, Juris Degšanas procesi : mācību līdzeklis civilajā aizsardzībā / Juris Kusiņš. [Rīga] : Juris Kusiņš, ©2015 178 lpp. : ilustrācijas, tabulas ; 21 cm. ISBN 9789934143854 (brošēts).
9. Malahova, J., Jemeljanovs, V. Civilā aizsardzība (Civilās aizsardzības sistēma). 1.daļa. 1. Rīga: Rīgas Tehniskā Universitāte, 2011. 68 lpp. ISBN 978-9934-10-274-5.
10. Normatīvo aktu projektu izstrādes rokasgrāmata (2016). Pieejams: <https://tai.mk.gov.lv/book/1/chapter/23>
11. Segodņiks, A., Bulva, A., Šūmanis, A., Meža un kūdras ugunsgrēka vadītāja rokasgrāmata. Tipogrāfija: "Zelta rudens". 2012. Pieejams: <https://www.vugd.gov.lv/sites/vugd/files/meza20un20kudras20ugunsgrēku20dzesanas20vaditaja20rokasgramata20a52098lpp1.pdf>
12. Ugunsdzēsībai Latvijā 150 : fotoalbums = 150 years of firefighting in Latvia : photo album = 150 лет пожарному делу Латвии : фотоальбом / [redkolēģija: Kristaps Eklons ... u.c. ; mākslinieks Aleksandrs Vinks]. Rīga : Valsts ugunsdzēsības un glābšanas dienests, ©2015 225, [1] lpp. : faksimili, il., portr. ; 23 cm.
13. Vadlīnijas rūpniecisko avāriju riska objektu izvietojuma minimālo drošības attālumu un teritorijas izmantošanas un apbūves ierobežojumu noteikšanai teritorijas plānošanas dokumentos. Pieejams: [https://lvafa.vraa.gov.lv/faili/materiali/petijumi/2016/LVPA\\_133/Vadlinijas\\_LVPA\\_F240217.pdf](https://lvafa.vraa.gov.lv/faili/materiali/petijumi/2016/LVPA_133/Vadlinijas_LVPA_F240217.pdf)
14. White, John, Health and safety management : an alternative approach to reducing accidents, injury, and illness at work / John White. Boca Raton : Taylor & Francis, CRC Press, 2019. xvi, 146 lpp. : ilustrācijas ; 24 cm ISBN 9781138500839 (brošēts).

Students also have access to the ILCP Methodology Room, where they can consult statistical materials, books, conference materials, course guides, etc.

Overall, the resources and facilities of the study programme are adequate to meet its needs. The continuous improvement and equipping of teaching laboratories is a positive development.

### **3.3.2. Assessment of the study provision and scientific base support, including the resources provided within the framework of cooperation with other science institutes and higher education institutions (applicable to doctoral study programmes) (if applicable).**

**3.3.3. Indicate data on the available funding for the corresponding study programme, its funding sources and their use for the development of the study programme. Provide information on the costs per one student within this study programme, indicating the items included in the cost calculation and the percentage distribution of funding between the specified items. The minimum number of students in the study programme in order to ensure the profitability of the study programme (indicating separately the information on each language, type and form of the study programme implementation).**

Information on the principles and methodology for allocating the funds is provided in section 2.3.1 of the report.

Information on the breakdown of funding between cost items is provided in the Annex "Breakdown of funding between cost items" of the Self-Assessment Report. Information on the cost per student is given in the Annex "Funding by Positions by the period from 2013-2022". Information on the minimum number of students required for the study program is given in the Annex to the Self-Assessment Report "On minimal number of students in study programmes".

The first cycle study programme "Fire Safety and Civil Protection" is financed from the state budget as well as from the means of natural and legal persons. Students may use study and student loans in accordance with the procedure established by the Cabinet of Ministers.

The tuition fee in full-time in-presence for the study programme was EUR 1650 in the academic year 2013/2014 to 2015/2016, EUR 1700 in the academic year 2017/2018, EUR 2300 in the academic year 2018/2019, EUR 2350 in the academic year 2019/2020, EUR 2400 in the academic year 2020/2021 and EUR 2550 in the academic year 2021/2022. In the reporting period, part-time extramural students did not apply, so no study fees have been set.

The study programme is mostly funded by a grant from the state budget. Student tuition fees account for only a small % in some years. For example, in the 2013/2014 academic year, the study programme was implemented 100% with state budget subsidies.

From the analysis of the information provided, it can be concluded that the level of funding for training is on an **upward** trend over the reporting period. The cost per student has increased during the reference period, except for 2021/2022 study year, which is explained by the improvement of infrastructure, as well as the overall increase of RTU costs due to objective reasons (utilities, building maintenance, etc.).

The available funding is used for the implementation of the study programme and for its development. Every year, funds are allocated for the purchase of literature in the library, the development and maintenance of information systems related to the study process, the improvement of the study material and technical base (see Section 3.3.1), and the involvement of highly qualified specialists as guest lecturers in the study process. During the emergency, the learning process was delivered remotely, mainly using MS Teams, Zoom, WebEx platforms. RTU provided all teaching staff with the possibility to use them by purchasing full licence packages.

The percentage distribution of funding between the identified cost items is in line with the requirements for the implementation of the study programme. Taking into account the fact that the study process is dynamic, the mechanism of the RTU financial management system gives the possibility, according to the real situation, to change its distribution among the cost items within the limits of the study programme funding in accordance with the legislation of the Republic of Latvia and the procedure established by RTU.

For full-time in-presence students studying in the official (Latvian) language, incl. **The first cycle professional higher education study programme "Fire Safety and Civil Protection " (IID0)" has a minimum enrolment** of 15 students **to ensure the cost-effectiveness of the study programme.**

The number of students fully **ensures the cost-effectiveness of the study programme**, given that the minimum number of students in the study programme is 15 students, while the average number of students per academic year during the reporting period is 49.6 students.

### 3.4. Teaching Staff

**3.4.1. 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 and CVs of the teaching staff provided in Section 2.3.7 of the Report on the Field of Study and its annexes. This emphasises the relevance of the qualifications and competences of the academic staff involved in the study programme to the specific nature of the study courses.

During the reporting period, the elected academic staff involved in the implementation of the study programme participated in a total of several academic conferences and seminars. They have also participated in roughly 47 scientific conferences and made presentations at roughly 72 international scientific conferences. They have published 149 articles in international scientific journals and conference proceedings, and have been on roughly 31 mobility trips. A total of 2856 academic hours spent in professional development and training seminars (including hospitality) and supervised 231 final theses.

The selection of teaching staff is related to their scientific and pedagogical work experience, areas of scientific research and achieved results, taking into account the specifics of the study programme and study courses.

**Professor Jānis Ieviņš, Director of the Institute** holds a PhD in economics. He carries out scientific research, participates in international conferences, seminars and courses. He is the author of numerous publications on the following topics: factors affecting the quality of the working environment, modern trends in disaster management, occupational health and safety issues, innovations in construction waste management, etc. As an expert of the Latvian Council of Science he worked in the field of Natural Sciences - Earth Sciences, Physical Geography and Environmental Sciences, from 2017 - Social Sciences - Economics and Entrepreneurship. Has supervised 4 doctoral theses. During the reporting period, he worked on international projects and national research projects, both as a manager and as an executor. From 1999 - until now - member of the RTU IEVF Council, from 2005 - 2020 - member of the RTU Senate, Academic Assembly. Continuously improves his knowledge through various training courses and seminars. The acquired knowledge is

useful in the development and management of the courses "Basics of Occupational Safety", "Fundamentals of the Activities of Technogenic Environment Safety Organisations", "Working Environment Risk Prevention Methods" and others.

**Programme Director and Professor Vladimirs Jemeljanovs** holds a PhD in engineering. He is the author of numerous scientific publications on occupational safety, risk management and fire safety. He is an expert in the Latvian Association of Power and Energy Engineers. During the reporting period, he worked on 6 international projects and 5 national research projects, both as a manager and as an executor. He is active in various organisations and commissions. Examples include the Latvian Firefighting Association, the Latvian Association of Electrical and Energy Engineers, the Latvian Association of Civil Engineers, LATAK (Latvian National Accreditation Bureau), the International Academy of Ecology and Life Protection Sciences, etc. Vladimirs Jemeljanovs is a member of the RTU Constituent Assembly. Has supervised 4 doctoral theses. Regularly participates in international and national methodological conferences, learning different teaching methods and their suitability for different study needs.

**Associate Professor Jeļena Pundure** holds a PhD in Economics. The title of the dissertation thesis is "Methods for assessing the economic efficiency of fire safety systems in Latvia". Author of more than 20 publications during the reporting period. Participates in scientific conferences, international and national research projects. Jeļena Pundure is an expert of the Latvian Council of Science in the social sciences - social and economic geography, economics and entrepreneurship, and in engineering and technology - environmental engineering and energy. She is an expert at the Quality Agency for Higher Education. Continuously improves his knowledge through various training courses and seminars. The acquired knowledge is useful in the development and management of the courses "Civil Protection System Planning", "Civil Defence", "Evaluation and Reduction of Industrial Emergency Risks", "Object Risk Assessment" and others.

**Docent Mihails Urbans** holds a Master's degree in Occupational Safety and a PhD in Management Science. The title of the doctoral thesis is "Methodology for assessing economic and environmental losses at hazardous sites". He carries out scientific research, participates in international conferences, seminars and courses. He has participated in the international project "Development of a common environmental risk management plan for the cities of Jelgava and Šiauliai". As part of this project, 6 increased hazards objects were subject to technogenic risk assessment. The results of the research contribute to the development and management of study courses "Facility Risk Assessment and Disaster Modelling and Management", "Object Risk Assessment and Disaster Modelling (study project)" and "Evaluation and Reduction of Industrial Emergency Risks", "Object Risk Assessment" and "Management and Simulation of Emergency Situations", among others.

**Associate Professor Māris Ziemelis** holds a PhD in the field of civil engineering in the sub-discipline of heat, gas and water engineering systems. The research results obtained in the dissertation "Increasing the efficiency of fire fighting with water" are successfully used in the work with students. In addition to his academic work at the university, Māris Ziemelis is a civil protection engineer at AS Latvenergo, as well as active in the Latvian Firefighting Association and the Latvian Association of Civil Engineers. Māris Ziemelis has many years of experience in management positions in the State Fire and Rescue Service, as well as several years of teaching experience as Deputy Director of the College (Head of the Training Department) at the Fire Safety and Civil Protection College of the Ministry of the Interior of Latvia. Many years of teaching and professional activity ensure knowledge of current issues in the field and practical application in work with students. He has developed and teaches the courses "Fire Safety of Construction and Design" and "Fire Safety of Construction and Design (Study Project)".

**Docent (Practical) Jānis Bērziņš** holds a Master's degree in Engineering. He has been Director of



the State Labour Inspectorate for more than 10 years, Head of the Labour Technical Inspectorate of the Industrial Complex in the Main Technical Supervision Administration, Labour Technical Inspector and Head of the Labour Protection Department in the Latvian Republican Council of Trade Unions. For more than 18 years he has been a member of the Board of the Latvian Association of Occupational Safety Specialists. He has worked as an expert at the Centre for Quality Assessment in Higher Education. In his 17 years of teaching experience, he has developed and supervised more than 10 study courses, as well as dozens of final theses. He has participated in several academic and scientific conferences, presented papers and published several scientific articles.

In order to ensure the quality of the study programme content and the graduates' competitiveness in the labour market, the teaching staff involved in the implementation of the programme regularly improve their professional and academic knowledge at various seminars, national and international conferences, scientific and research work (see Appendix "List of publications of teaching staff for the reporting period"), and by engaging in various projects and contractual works. Information on the lecturers involved in the study programme and their relevance to the courses taught is presented in the annexes "Basic information on the lecturers involved in the implementation of the study field" and "Biographies of lecturers".

The staff involved in the study programme actively benefit from international cooperation and mobility programmes, including the Erasmus+ programme (see Annexes "Izejošā mobilitāte Erasmus mācībspēki\_Outgoing mobility Erasmus Staff"" and ""Izejošā mobilitāte mācībspēki CITS\_Outgoing mobility Staff OTHER"). The latest knowledge and practical experience gained through international cooperation and mobility are used to update and improve the study courses taught by the teaching staff and to better achieve the goals and objectives of the study programme.

The involvement of the study programme staff in various projects and other forms of cooperation with foreign partners and educational institutions (see Appendix "Biographies of the teaching staff") allows the study programme to attract both foreign guest lecturers and to conduct practical international intensive training programmes for students, in which representatives and experts from other countries also participate and share their practical experience and knowledge. This type of cooperation also promotes the mobility of students and the opportunity to learn new skills through exchange programmes or internships abroad. During mobility, teaching staff are often introduced to new teaching methods and techniques, which they then integrate into their studies. Students integrate the knowledge they gain from these exchanges and training sessions into their own research papers and present them at conferences. This allows students to develop research skills and competences.

Since the programme's teaching staff members have extensive practical experience and work as experts not only in the Latvian Council of Sciences, but also in various organisations representing the field, they are called upon as competent contractors in various contract works related to the field, if necessary. The teaching staff members integrate the knowledge gained in these contract projects into scientific articles, which students can then use as sources of information on current developments in the field. The activities of teaching staff as experts are also reflected in the work of the various working groups that develop relevant legislation and standards. This allows the teaching staff to provide up-to-date and high-quality information on the normative basis on which students will have to base their professional activities in the future.

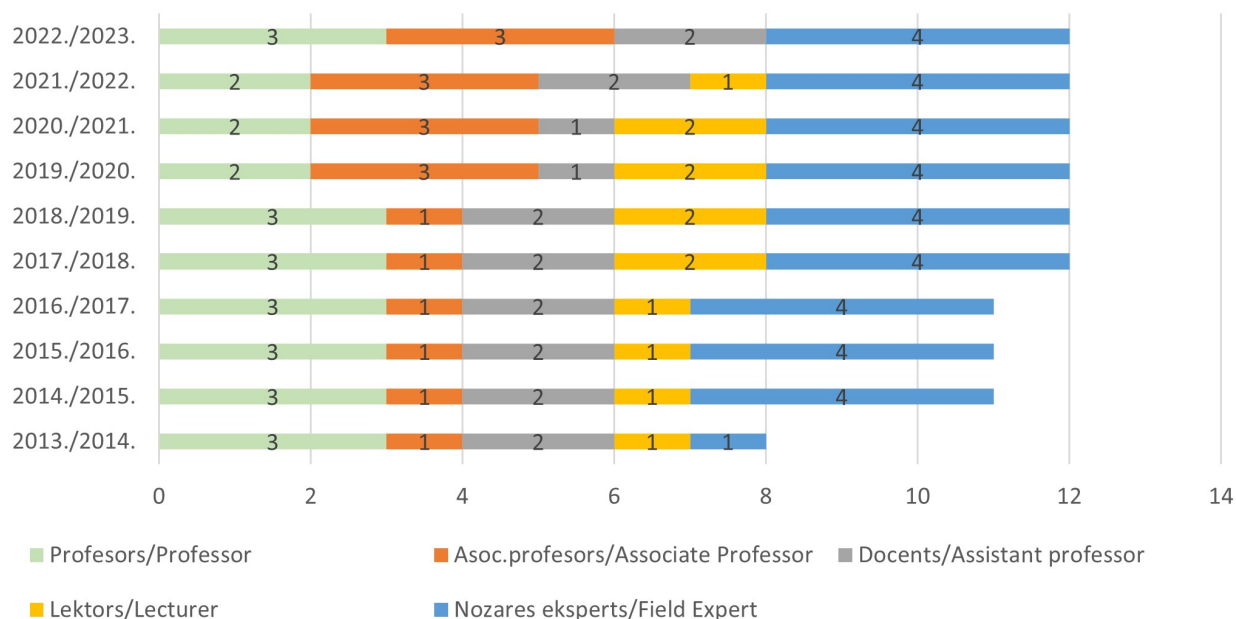
In general, it can be concluded that the competence, knowledge and practical work experience of the teaching staff involved in the implementation of the study programme allow to achieve the objectives of the study programme, to successfully implement the tasks to be performed and to ensure the successful achievement of the achievable results set for the programme.

### **3.4.2. 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 programme is delivered by both academics and highly qualified industry experts. Student surveys show that they value the involvement of experts in the field. Information on the teaching staff is presented in the annex "Basic information on the teaching staff involved in the implementation of the field of study".

The figure "Changes in the composition of teaching staff of the study programme "Fire Safety and Civil Protection " by positions (2013-2023)" below summarises the information on changes in the number of teaching staff involved in the implementation of the study programme by position during the reporting period. It can be seen that the number of professors slightly decreased in the academic years 2019/2020 to 2021/2022, but in the last year there are three professors again, while the number of associate professors has increased (one until the academic year 2018/2019, and three every year thereafter). The number of docents is mostly unchanged at two (only in the academic years 2019/2020 and 2020/2021, when one docent participated in the implementation of the study programme, there was a slight decrease). In the period from 2013/2014 to 2017/2018, one lecturer has been involved in the implementation of the study programme, and from 2017/2018 to 2020/2021, two lecturers have been involved. In the 2021/2022 academic year, there is again only one lecturer. However, in the academic year 2022/2023 no lecturer is participating in the implementation of the study programme. It should also be noted that in the academic year 2013/2014 there was only one expert in the field, but since the academic year 2014/2015 there have been four experts in all subsequent years. All changes in the composition of the teaching staff are related both to changes in the content of the study programme and to the fact that some of the teaching staff members involved terminated their employment relations with RTU. Nevertheless, it ensures that the programme is continuously implemented by a wide range of teaching staff members and that students receive a wide range of information on the theoretical and practical aspects of the sector.

**Studiju programmas "Ugunsdrošība un civilā aizsardzība" mācībspēku sastāva izmaiņas pēc amatiem (2013-2023)/Changes in the composition of teaching staff of the study program "Fire safety and civil protection" (2013-2023)**



The table shows that, in line with the suggestions made in the students' questionnaires and the fact that this is a first cycle professional higher education study programme, highly qualified academic staff, industry specialists and experts are involved in the teaching process, thus bringing the programme content as close as possible to the specifics and topicalities of the industry.

Another positive aspect of the generational change of the programme's teaching staff is the tendency to attract former graduates of study programmes to the teaching profession. As an example of such continuity, Mihails Urbans, a graduate of this programme, after graduating from the "Occupational Safety" programme and obtaining a Professional Master's degree, continued his studies in a doctoral programme, successfully defended his doctoral thesis and has now joined the faculty of the Institute of Labour and Civil Protection as an assistant professor and researcher; he is also currently teaching the courses "Facility Risk Assessment and Disaster Modelling and Management" and "Facility Risk Assessment and Disaster Modelling (study project)".

**3.4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of 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 or peer-reviewed monographs may be additionally specified. Information on the teaching staff included in the database of experts of the Latvian Council of Science in the relevant field of science (total number, name of the lecturer, field of science in which the teaching staff has the status of an expert and expiration date of the Latvian Council of Science expert) (if applicable).**

**3.4.4. 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).**

**3.4.5. 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 programme and 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).**

Cooperation between teaching staff within the study programme takes place both during the semester when teaching study courses and when planning and developing changes and developments necessary to update the study programme. To ensure the interconnectedness of the course content, the programme conducts an annual course audit, as well as various seminars where the programme staff familiarise themselves with the course topics, teaching methods and discuss improvements. Daily communication in the teaching environment is both formal (weekly meetings of the Institute, weekly operational meetings of the Faculty, etc.) and informal (individual face-to-face meetings, telephone communication, etc.). Courses are regularly updated and improved based on both student suggestions and industry trends. The teaching staff members involved in the programme collaborate within the courses of study to ensure that the courses of study are linked to the objectives and professional qualification requirements of the programme of study. For example, study programme staff have developed a number of guidelines for both study projects and internships in collaboration with each other. Professor V. Jemeljanovs, associated professor J.Pundure, associated professor M.Ziemelis and researcher G. Bazone developed "Methodological instructions on the organisation, implementation and defence of internship in the first cycle of professional higher education study programme "Fire Safety and Civil Protection ". In turn, the teaching staff members M. Ziemelis and V. Jemeljanovs jointly developed "Methodological Instructions on Planning, Development and Defence of a Study Project in Fire Safety in Construction and Design". Within the study project "Facility Risk Assessment and Disaster Modelling and Management (study project)", docents M. Urbans and asoc. prof. J.Pundure jointly developed methodological guidelines for the planning, development and defence of the study project.

Throughout the semester, when implementing study courses, meetings and methodological sessions of the teaching staff are held to discuss the topics of study courses and necessary improvements in the study content in order to agree on topics, directions, responsibilities and compliance with regulatory requirements. All teaching staff members involved in the course of study are involved in the process of coordinating the courses of study to ensure that the topics covered in the programme of study do not overlap and are continuously improved and updated in collaboration with the professionals involved in the field. For example, when updating the professional qualification requirements, the programme director and teaching staff worked closely with the representatives of the SFRS to ensure that the skills and competences included in the new professional qualification requirements were transferred to the study courses. As a result, the study

programme has undergone corresponding changes in content and structure. The compulsory and restricted elective part of the programme includes courses in such a way that there is no overlap. The mechanisms for collaboration vary between the teaching staff - meetings, individual face-to-face meetings, remote meetings or a combined version where some meet in person and some join interactively via Zoom or MS Teams. This ensures that issues related to the study process and its improvement are discussed promptly, the topics taught in the study courses are in line with the programme objectives and the learning outcomes of the study courses are integrated into the overall learning outcomes of the programme, taking into account different work schedules and workloads. The participation of the Study Programme Director in weekly departmental meetings allows to receive up-to-date information and to maintain the compliance of the study programme content and achievable results with the strategic goals of the faculty and RTU. Cooperation between teaching staff takes place both within a given course of study, through collaboration between the responsible teaching staff and industry professionals, and between courses of study with related themes requiring the study of similar topics, at different levels of understanding, as well as in the process of developing final theses. Every year, the study programme's teaching staff collaborates with representatives of the State Fire Service to gather information on current topics on which students could write their diploma projects. This ensures that graduates develop their final theses on topics relevant to the sector and the field.

Analysing the ratio of students to teaching staff within the study programme, it can be concluded that in the academic year 2022/2023 there is one elected teaching staff member per 6.25 students and one subject specialist per 12.5 students.

# Annexes

III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme	Fire safety and civil protection_diploma and diploma supplement.pdf	Ugunsdrošība un civiļā aizsardzība_diploms ar pielikumu.pdf
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (Table) (if applicable)		
Statistics on the students in the reporting period	5.pielikums_Annex 5_Statistikas dati par studējošajiem_statistical data on students.pdf	5.pielikums_Annex 5_Statistikas dati par studējošajiem_statistical data on students.pdf
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard	6.pielikums_Annex 6_atbilstība valsts izglītības standartam_compliance with the national education standard.pdf	6.pielikums_Annex 6_atbilstība valsts izglītības standartam_compliance with the national education standard.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (if applicable)	7.pielikums_7 Annex_Studiju programmas atbilstība profesijas standartam_Study programme compliance with Professional standard.pdf	7.pielikums_7 Annex_Studiju programmas atbilstība profesijas standartam_Study programme compliance with Professional standard.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	Specifiskais normatīvais regulējums_Specific Regulatory Framework_.pdf	Specifiskais normatīvais regulējums_Specific Regulatory Framework_.pdf
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8.pielikums_Annex 8_Kartēšana_Mapping_.pdf	8.pielikums_Annex 8_Kartēšana_Mapping_.pdf
The curriculum of the study programme (for each type and form of the implementation of the study programme)	9.pielikums_Annex 9_Studiju kursu plāns_Course plan_.pdf	9.pielikums_Annex 9_Studiju kursu plāns_Course plan_.pdf
Descriptions of the study courses/ modules	Annex 10_Study courses_ENG.pdf	10. pielikums_Studiju kursi_LV.pdf
Description of the organisation of the internship of the students (if applicable)	Internship_Management_Procedure.pdf	Prakses_organizēšanas_kartība.pdf
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		
Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		

# Occupational Safety (47862)

Study field	<i>Internal Security and Civil Protection</i>
ProcedureStudyProgram.Name	<i>Occupational Safety</i>
Education classification code	<i>47862</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>Ieviņš</i>
E-mail of the study programme director	<i>janis.ievins@rtu.lv</i>
Title of the study programme director	<i>Doktors</i>
Phone of the study programme director	<i>+371 29272394</i>
Goal of the study programme	<i>The aim of the study programme is to prepare a specialist who has knowledge and skills in the areas of management, organisation and supervision of the labour protection system, risks of the working environment, analysis, forecasting and who would be able to set a project goal, participate in its development and implementation, make calculations, take decisions on improving the labour protection system and implement them in accordance with the requirements of the profession of Chief Specialist in Occupational Safety, as well as to continue studies in the doctoral programme.</i>
Tasks of the study programme	<p><i>Tasks of the study programme:</i></p> <ul style="list-style-type: none"> <li><i>- to provide knowledge in setting up and managing a company's labour protection system;</i></li> <li><i>- in labour protection legislation, occupational risk management and assessment, occupational safety, fire safety, civil protection, business economics and management, occupational health and occupational medicine, environmental protection, education or psychology;</i></li> <li><i>- to develop practical work skills in the use of various decrees and regulations of the Cabinet of Ministers of the Republic of Latvia, regulations and instructions issued by the Ministries of Welfare and Economics and their structural units and to use the knowledge acquired during studies and practice in the elaboration of study works and projects, as well as Master's theses;</i></li> <li><i>- to develop students' ability to understand the goal of problem solving, to participate professionally in the management and development of the project, carrying out the necessary procedures;</i></li> <li><i>- to ensure the development and changes of the study programme content, study process, scientific and research work in accordance with changes in international practice, scientific and didactic practice;</i></li> <li><i>- to stimulate students' interest in the processes taking place in society, including in a professional context, to stimulate students' development into modern, responsible and professionally capable personalities; ·</i></li> <li><i>- to develop cooperation between academic staff and students, to promote research and practical application of the results in quality management and conformity assessment in different organisations, to promote international mobility and participation in projects.</i></li> </ul>

Results of the study programme	<p><i>Graduate of the study programme is:</i></p> <ol style="list-style-type: none"> <li><i>1. able to establish and manage the company's labour protection system, integrate into the company's labour protection system the requirements of appropriate regulatory acts and standards in the field of labour and environment protection, assess the effectiveness of the labour protection system in the business context;</i></li> <li><i>2. able to manage and train human resources in labour and environmental protection matters, organise the participation of employees and their representatives in solving labour protection issues, control their knowledge and skills, develop labour protection instructions and educational training materials;</i></li> <li><i>3. able to plan, implement and improve the internal monitoring of the working environment, organise measures necessary for the prevention of possible serious or direct dangers and accidents at work, organise occupational health measures for employees in the company;</i></li> <li><i>4. able to assess and analyse work environment risks, develop work environment risk management procedures and apply appropriate methods, implement work environment risk management and monitoring, evaluate the effectiveness of work environment risk management and implemented measures, including introduction of new work equipment;</i></li> <li><i>5. able to apply general skills, knowledge and competences in professional activity, implement social and civic skills for creating social dialogue in society and the company, use information and communication technologies, integrate knowledge from different fields, contributing to the creation of new knowledge, development of research or professional activity methods, develop reports, publications and presentations on research results in the relevant industry and professional field.</i></li> </ol>
Final examination upon the completion of the study programme	<i>Master's thesis</i>

## Study programme forms

### Part time extramural studies - 2 years - latvian

Study type and form	<i>Part time extramural 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 in occupational protection and safety or comparable education; or professional bachelor degree in environmental sciences, engineering and technology, public health, management science, legal science, physical sciences, life sciences or comparable education, and at least one year professional experience in an occupational safety-related field.</i>



Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in occupational safety</i>
Qualification to be obtained (in english)	<i>Chief Specialist in Occupational Safety</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### 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 in occupational protection and safety or comparable education; or professional bachelor degree in environmental sciences, engineering and technology, public health, management science, legal science, physical sciences, life sciences or comparable education, and at least one year professional experience in an occupational safety-related field.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in occupational safety</i>
Qualification to be obtained (in english)	<i>Chief Specialist in Occupational Safety</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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 environmental sciences, engineering sciences and technologies, public health, management, legal science, physical sciences, life sciences or comparable education, and at least two years of professional experience in an occupational safety-related field.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master' degree in occupational safety</i>
Qualification to be obtained (in english)	<i>Chief Specialist in Occupational Safety</i>

### Places of implementation

Place name	City	Address
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Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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>Academic Bachelor degree in environmental sciences, engineering sciences and technologies, public health, management, legal science, physical sciences, life sciences or comparable education, and at least two years of professional experience in an occupational safety-related field.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master degree in occupational safety</i>
Qualification to be obtained (in english)	<i>Chief Specialist in Occupational Safety</i>

### **Places of implementation**

<b>Place name</b>	<b>City</b>	<b>Address</b>
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

## **3.1. Indicators Describing the Study Programme**

**3.1.1. Description and analysis of changes in the parameters of the study programme made since the issuance of the previous accreditation form of the study field or issuance of the study programme license, if the study programme is not included on the accreditation form of the study field, including changes planned within the evaluation procedure of the study field evaluation procedure.**

The following changes have been made to the study programme parameters in preparation for the evaluation and accreditation procedure:

In December 2022, it was decided to add the professional qualification "Chief Specialist in Occupational Safety" to the study programme. The changes are necessary because at the meeting of the Tripartite Sub-Council for Professional Education and Employment of 9 February 2022 (Minutes No.1.) the requirements for the professional qualification of a Chief Specialist in Occupational Safety, corresponding to the seventh level of the Latvian Qualifications Framework (LQF 7), were approved. Until 2022, the LQF 7 had no such requirements and did not award professional qualifications, only a Professional Master's degree.

In December 2022, it was decided to change the admission requirements to read as follows: 'A Professional Bachelor's degree in occupational protection and safety; or a Professional Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent, and at least one year's professional experience in a field related to occupational safety'.

In December 2022, it was decided to create a second version of the programme in the amount of 80 CP (including the course ICA712 "Internship" in the amount of 20 CP in the 80 CP version of the programme), setting the following programme parameters:

- Scope of studies: 80 CP;
- Duration of studies in years: full-time - 2 years; part-time - 2 years, 6 months;
- Degree and qualification: Professional Master's degree in occupational safety and qualification as a chief occupational safety specialist;
- Required previous education: Academic Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent and at least two years' professional experience in a field related to occupational safety.

**3.1.2. Analysis and assessment of the study programme compliance with the study field. Analysis of the interrelation between the code of the study programme, the degree, professional qualification/professional qualification requirements or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements. Description of the duration and scope of the implementation of the study programme (including different options of the study programme implementation) and evaluation of its usefulness.**

The Professional Master's study programme "Occupational Safety" corresponds to the study field "Internal Security and Civil Protection". The courses cover areas such as occupational health and safety, human health at work, fire safety and civil protection. The programme has interdisciplinary components. According to the classification of education (Cabinet of Ministers of the Republic of Latvia Regulations No.322, 2017) the study programme is in the thematic area of Civil and Military Protection Services - Occupational health and safety (code 862), (ISCED-2013 classification: 1022 Occupational health and safety).

The professional qualification "Chief Specialist in Occupational Safety" and the corresponding professional code 2133 02 to be awarded to graduates of the study programme comply with Cabinet of Ministers Regulation No 264 "Regulations on the Classification of Professions, Key Tasks and Basic Qualification Requirements Corresponding to the Profession".

Upon fulfilment of the requirements, graduates are awarded a second cycle of professional higher education leading to a Master's Degree in Occupational Safety according to the LQF 7 and the professional qualification "Chief Specialist in Occupational Safety" according to the PQL 7.

The aim of the study programme is to provide a systematic and coherent education in the fields of internal security and civil protection. The objectives of the study programme "Occupational Safety" are subordinate to the objectives of the field of study, forming a coherent framework while reflecting the specificities of the study programme. The aim of the study programme "Occupational Safety" is to prepare a specialist who has knowledge and skills in the areas of management, organisation and supervision of the occupational safety system, risks of the working environment, analysis, forecasting and who would be able to set a project goal, participate in its development and implementation, make calculations, take decisions on improving the occupational safety system and implement them in accordance with the requirements of the profession of Senior occupational safety Specialist, as well as to continue studies in the doctoral programme.

The objectives of the study programme are to provide knowledge in the establishment and management of occupational health and safety systems in enterprises, occupational health and safety legislation, occupational risk management and assessment, occupational safety, fire safety, civil protection, business economics and management, occupational health and occupational medicine, and environmental protection; to develop practical work skills in the use of various decrees and regulations of the Cabinet of Ministers of the Republic of Latvia, regulations and instructions issued by the Ministries of Welfare and Economics and their structural units, and to use the knowledge acquired during studies and practice in the elaboration of study works and projects, as well as Master's theses; to develop students' ability to understand the goal of problem solving, to participate professionally in the management and development of the project of its implementation, carrying out the necessary procedures; to ensure the development and changes of the study programme content, study process, scientific and research work in accordance with changes in international practice, scientific and didactic practice; to stimulate students' interest in the processes taking place in the society, including, in professional context, to stimulate the development of students into modern, responsible and professionally capable individuals; to develop cooperation between academic staff and students, research work and practical application of the results obtained in quality management and conformity assessment in various organisations, to promote international mobility and participation in projects.

As a result of the Master's studies, the knowledge and competences necessary for a chief occupational safety protection specialist are acquired, thanks to which he is able to establish and manage the occupational safety system of the enterprise, to integrate the requirements of relevant normative acts and standards in the field of occupational safety and environmental protection into the occupational safety system of the enterprise, to evaluate the effectiveness of the occupational

safety system in the business context; to manage and train human resources in occupational safety and environmental protection, to organise participation of employees and their representatives in occupational safety issues, to control their knowledge and skills, to develop occupational safety instructions and educational training materials; be able to plan, implement and improve internal monitoring of the working environment, organise measures necessary to prevent potentially serious or imminent hazards and accidents at work, organise occupational health measures for employees in the undertaking; be able to carry out risk assessment and analysis of the working environment, develop procedures and apply appropriate methods for managing risks in the working environment, implement risk management and monitoring of the working environment, evaluate the effectiveness of risk management and measures implemented in the working environment, including the introduction of new work equipment; be able to apply general skills, knowledge and competences in professional activities, to exercise social and civic skills for social dialogue in society and in business, to use information and communication technologies, to integrate knowledge from different fields, contributing to the creation of new knowledge, research or the development of professional methods, to produce reports, publications and presentations on research results in the field and area of professional activity.

The study programme is completed by a final examination, which is evaluated on a ten-point scale and includes the defence of the Master's thesis. The criteria for the defence of the Master's thesis are:

- systematising, consolidating and extending theoretical knowledge and experience;
- independent study of literature and other information sources, including in foreign languages;
- the theoretical framework and problem-solving skills of the tasks, including individual and complex summaries and novelty elements;
- analysis of a current business problem;
- developing and implementing practical solutions;
- developing and strengthening independent applied research skills and the ability to defend the practical results obtained.

A student who has completed the programme and passed the final examination with a grade of at least 4 (almost average) receives a diploma.

The specific objectives and targets of the programme are defined in line with the strategic objective and the main targets, in cooperation with experts in the field of occupational safety and civil protection and employers.

The Professional Master's degree programme "Occupational Safety" is designed to prepare senior occupational health and safety professionals for the demands of the Latvian and global labour market. The study process places great emphasis on the development of professional and practical competencies based on scientific achievements, theoretical knowledge and the specifics of the field. Not only academic staff of the university are involved in the implementation of study processes, but also industry representatives who are highly qualified practitioners with invaluable professional experience in companies and government institutions.

Upon graduation, the graduate obtains the status of "Competent Specialist in Occupational Safety". Graduates can work in state and municipal institutions, as well as in commercial enterprises as occupational health and safety specialists, and are entitled to carry out pedagogical work in their speciality in accordance with the legislation of the Republic of Latvia.

Analysing compliance with the Cabinet of Ministers Regulations No.305 „Regulations on the state

standard of professional higher education" (see Annex 6), it can be concluded that:

- The objectives of the study programme are in line with the requirements set out in the national education standard;
- The scope of the study programme and its structural distribution are in line with the national education standards.
- The content of the study programme is in line with the requirements set out in the national education standard; The main parts of the programme are study courses, an internship outside the educational institution and a national examination - the Master's thesis;
- The principles of programme assessment are in line with the national education standards;
- Positive achievements are summed up;
- Assessment is compulsory at the end of each course;
- A summative assessment made up of several types of knowledge tests;
- Openness and clarity of requirements - the examination requirements are available to all interested persons at the study programme administration or teaching staff, are explained at the beginning of the study course (first lesson), and are placed in the ORTUS e-learning system together with the study course description;
- Variety of forms of assessment - independent work, control work, seminars, lectures, examinations, defence of internship work, defence of Master's thesis, etc.

Implementation of the study programme in option 1 (60 CP/90 ECTS) is useful, as it ensures fulfilment of the requirements of Cabinet Regulation No. 305 "Regulations on the state standard of professional higher education" regarding the total amount, content, degree to be obtained and qualification to be granted to students with previously acquired first cycle vocational higher education.

Implementation of the study programme in option 2 (80 CP/120 ECTS) is useful, as it ensures fulfilment of the requirements of Cabinet Regulation No. 305 "Regulations on the state standard of professional higher education" regarding the total amount, content, degree to be obtained and qualification to be granted to students with previously acquired academic education.

Taking into account that the master's study program "Occupational Safety" is realized only with student fees and working students study in it, in both versions of its implementation it is useful to offer both full-time in-presence studies and part-time extramural studies study opportunities, so that students can choose the most suitable form of study and shape. This can reduce student dropout rates.

The content and scope of the examinations shall be appropriate to the content of the course description and to the skills and knowledge requirements of the professional qualification. All conditions are described in the course description for each course.

### **3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.**

The Labour Protection Law (in force since 01.01.2002) requires employers to set up an occupational safety system and to take measures to protect workers, such as training, risk assessment and preventive measures. The employer is responsible for the health and safety of employees at work, according to the provisions of the Labour Protection Law, but in order to ensure the necessary quality, an occupational health and safety specialist or a competent authority is hired.

According to Paragraph 5.1 of the Cabinet of Ministers Regulation No.99 "Regulations on types of commercial activity in which the employer involves a competent body" - If there are from 6 to 10 employees in an undertaking, the employer is allowed to not involve a competent authority, provided that he or she ensures that 1) a labour protection system has been established and is operating at the undertaking, 2) internal supervision of the work environment and risk assessment at the undertaking is performed by a labour protection specialist whose knowledge conforms to one of the following requirements:

- he or she has acquired higher vocational education in labour protection;
- he or she has acquired higher education in natural sciences, engineering, the field of health protection or in law and he or she has work experience of at least five years in the relevant profession or labour protection, and also he or she has acquired the labour protection basic knowledge education programme in the amount of 160 hours;
- he or she has acquired the labour protection basic knowledge education programme and the specialised knowledge education programme in the field of labour protection in relation to the relevant type of commercial activities.

Paragraph 5.2 of the above Regulation states - if there are 11 or more employees in an undertaking, the employer is allowed to not involve a competent authority, provided that he or she ensures the fulfilment of the following requirements:

- a labour protection system has been established and is operating at the undertaking;
- internal supervision of the work environment and risk assessment at the undertaking is performed by a labour protection specialist who has received higher vocational education in labour protection.

Consequently, in accordance with the requirements of the laws and regulations of the Republic of Latvia, all companies need an occupational health and safety officer.

According to the Latvian Employers' Confederation, senior occupational safety and health specialists are in high demand in the labour market and have the opportunity to train as fire safety and civil protection officers. The Latvian Association of Occupational Safety and Health Professionals, on the other hand, believes that a generational change is needed, given the general level of technological development. Currently, 154 senior occupational safety and health specialists have completed their Master's degrees between 2013 and 2022, and with an average of more than 90,000 companies operating in the country, there is a great need for such specialists in the country.

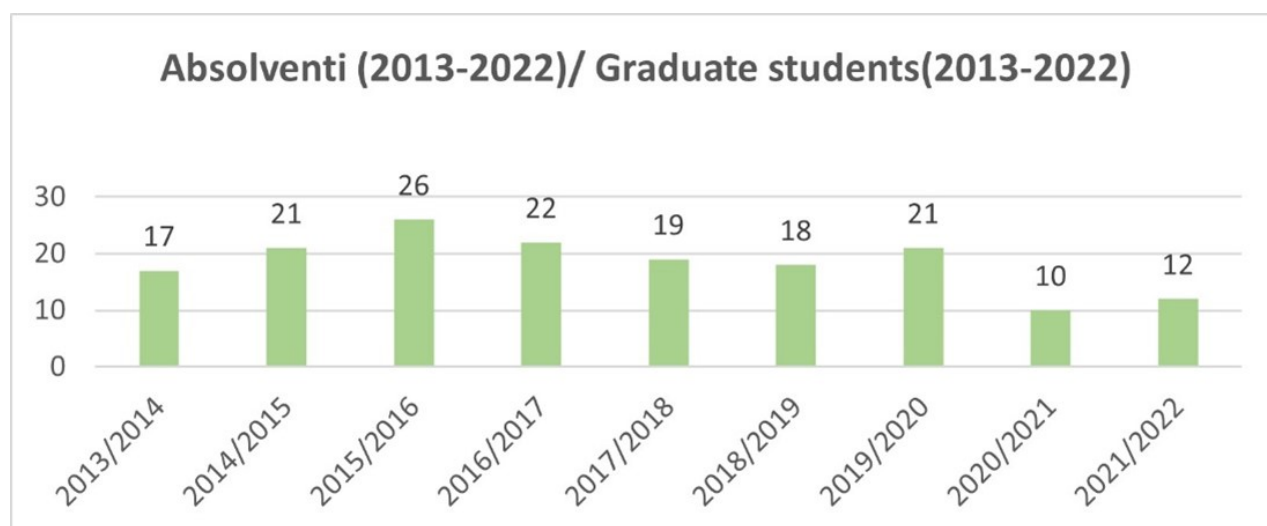
The Professional Master's degree programme "Occupational Safety" was ranked 15th in Eduniversal's 2021 ranking of the top 100 business information and strategy programmes worldwide. In 2022, the study programme was ranked 4th in Cybersecurity, Systems Security and Data Protection (TOP 30) and 12th in Environmental security (TOP 100). *Eduniversal* is a rating produced by French rating agency and consultancy SMBG. It is an organisation specialising in higher education and career guidance. It annually ranks the top 1000 universities and business schools in more than 150 countries, as well as globally, with 4,000 Masters and MBA programmes in 30 different specialisations.

The content of the study programme is designed in accordance with the professional standard "Chief Specialist in Occupational Safety" (professional code - 226301) and fulfilling its requirements. The assessment of the relevance of the study programme to the professional standard is given in Annex 7. It can be seen that for each level of knowledge defined in the occupational standards (concept, understanding or application), courses have been designed with appropriate content and topics. Therefore, it can be concluded that the Master of Professional Studies programme "Occupational Safety" meets the requirements set out in the professional standard.

The study programme is developed in accordance with the requirements of the education standard (Regulation No 512 of the Cabinet of Ministers of the Republic of Latvia of 26 August 2014). Students in Option 1 of this programme are matriculated only after a Professional Bachelor's degree in occupational protection and safety; or a Professional Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent, and at least one year's professional experience in a field related to occupational safety. Students enrolled in Option 2 are matriculated after acquiring an Academic Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent and at least two years of professional experience in a field related to occupational safety.

The relevance of the study programme, its compliance with the occupational standard and the requirements of the labour market is also demonstrated by the fact that many of them are already working in companies and competent institutions as occupational safety and health specialists, and some of them already hold positions in private and public structures related to occupational safety and health.

Despite being a fee-only programme, it is still in demand, as evidenced by the number of graduates.



Looking at the graduate statistics, the highest number of graduates was in the 2015/2016 academic year (26 graduates) and the lowest in the 2020/2021 academic year (10 graduates). The low number of graduates in the 2020/2021 academic year is due to the fact that some students had an academic year, resulting in only some renewing and completing their studies, as well as the fact that the previous academic year (pandemic year) had a lower number of enrolled students. Looking at the number of graduates for the reporting period, the average number of graduates per year is 18, which is a good indicator for the further development and improvement of the programme.

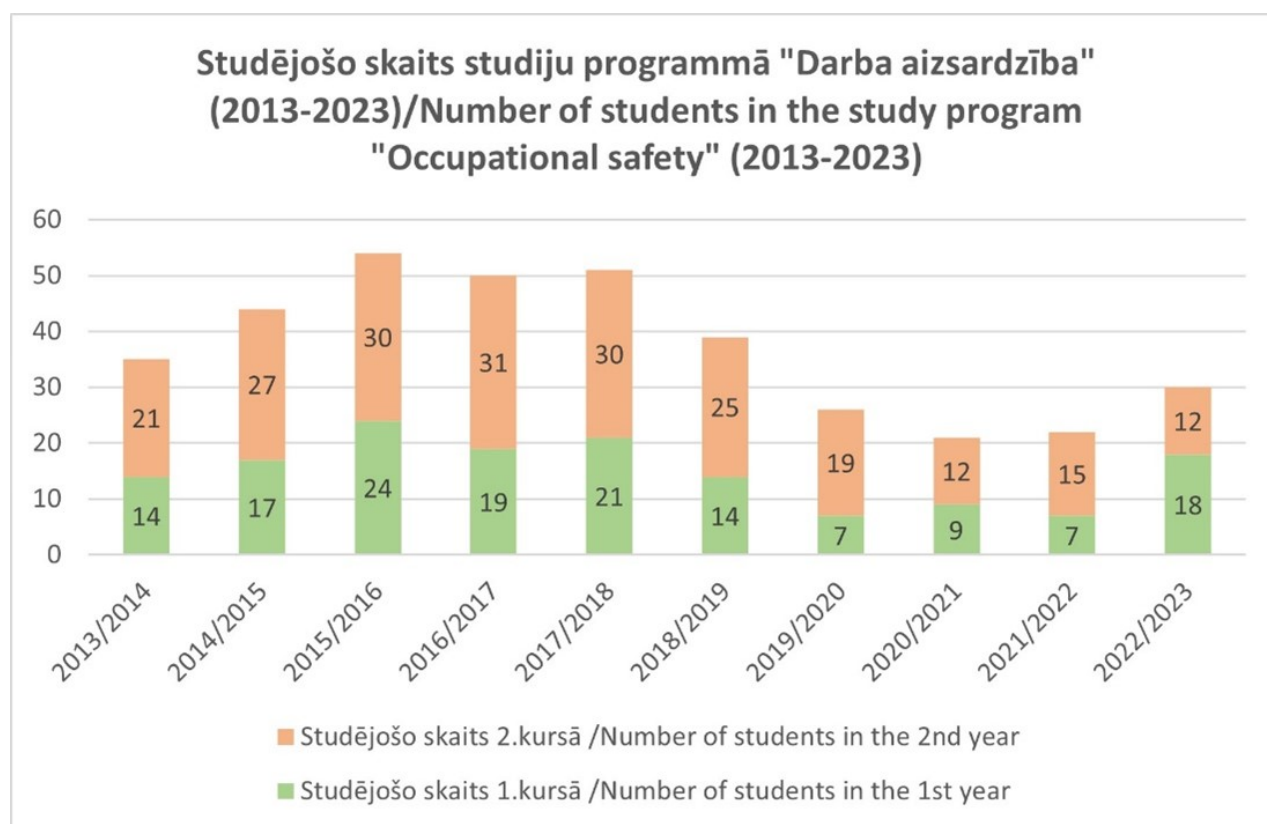
**3.1.4. Statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down into different study forms, types, and languages.**



In recent years, the Professional Master's study programme "Occupational Safety" has been implemented in the form of part-time studies, in Latvian only and at the sole expense of natural and legal persons.

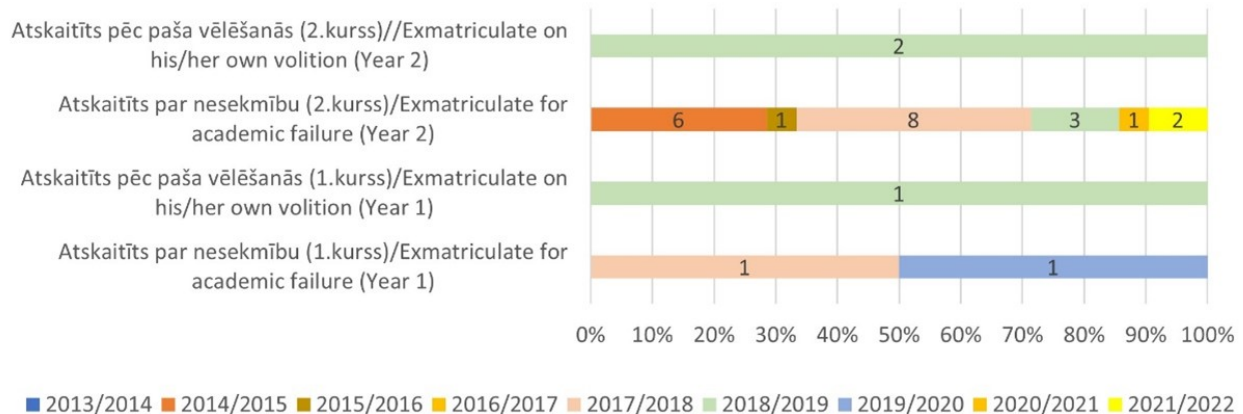
Analysing the dynamics of the number of students, it can be concluded that the highest number of students in the 1st year was in the academic year 2015/2016 - 24 students. This is due to the economic upturn in the country, which led to an increase in the number of enterprises requiring qualified occupational safety and health professionals. The lowest number of students in the 1st year is observed in the academic years 2019/2020 and 2021/2022 - 7 students each. This is because the economic situation was uncertain in the context of the pandemic, both nationally and at a company level, so potential students were very conscious of their ability to pay for their studies. The highest number of students in the 2nd year was in the academic year 2016/2017 - 31 students, and the lowest is in the academic year 2020/2021 - 12 students.

The dynamics of the number of students is shown in the figure below.



Analysing the reasons for dropout (see figure below), it can be concluded that during the reporting period, the highest proportion (1.5%) of students in the 1st year dropped for poor performance and 0.75% were ex-matriculated upon their own request. The main reason for poor performance in the 1st year is that students are unable to combine their studies with their workload. The reasons for voluntary dropout include the aforementioned inability to combine work and study, as well as health and family circumstances. In the 2nd year, the highest dropout rate in the reporting period was for poor performance (10%) and the second reason for dropout was those who left their studies voluntarily (0.95%). In this case, the reasons for poor performance are mainly the number of outstanding courses since the first year is carried over to the second year, but this increases the workload and ultimately results in students being unable to meet their academic obligations. The reasons for students to have discontinued their studies of their own volition are the same as in the case of the 1st year.

### Studējošo atbirums studiju programmā "Darba aizsardzība" (2013-2022)/Students dropout in the study program "Occupational safety" (2013-2022)



Overall, the dynamics of student enrolment reflect the correlation between the number of students enrolled and the overall economic situation in the country, as the number of students has increased during years of economic stability and growth, but declined during the economic crisis and pandemic. It follows that, as this is a professional Master's programme run entirely on students' personal fees, investing these funds in further education is carefully weighed against the overall economic trends in the country. However, given that the need for specialists in this programme is maintained in the country and is not fully met, it would be necessary to find a way to offer budget places as well.

#### 3.1.5. Substantiation of the development of the joint study programme and description and evaluation of the choice of partner universities, including information on the development and implementation of the joint study programme (if applicable).

## 3.2. The Content of Studies and Implementation Thereof

**3.2.1. Analysis of the content of the study programme. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators with the aims of the study course/ module and the aims and intended outcomes of the study programme. Assessment of the relevance of the content of the study courses/ modules and compliance with the needs of the relevant industry, labour market and with the trends in science on how and whether the content of the study courses/ modules is updated in line with the development trends of the relevant industry, labour market, and science.**

The study programme complies with the national education standards (see Annex 6). As a result of the study programme, students acquire the necessary knowledge, skills and competences corresponding to the seventh level of professional qualification (PQL 7) and the seventh level of the Latvian Qualifications Framework (LQF 7), which correspond to the Occupational Standard for Chief Specialist in Occupational Safety (see Annex 7). The compliance of the study programme with the specific regulatory framework of the relevant sector is shown in the Annex "Specific Regulatory Framework". The curriculum plan for each type of study programme is given in Annex 9. The course descriptions of the study programme are given in Annex 10. The mapping of study courses to achieve the study outcomes of the study programme is given in Annex 8.

The second cycle professional higher education or professional master's study programme "Occupational Safety" is developed in accordance with the Law on Higher Education of the Republic of Latvia, in accordance with the Classification of Education of the Republic of Latvia, in accordance with the Cabinet of Ministers Regulation No 305 of 21 June 2023 "Regulations on the state standard of professional higher education" and the decision "On Approval of Riga Technical University Unified Requirements for Study Programmes in New Wording" adopted at the RTU Senate meeting of 30 March 2020.

The scope of the study programme and its structural distribution are in line with the national education standards. The programme and courses are reflected in credits.

The structure of the study programme consists of: Part A "Compulsory Study Courses" 20CP(30 ECTS) (Options 1 and 2), Part B "Restricted Elective Study Courses" 14CP(21 ECTS) (Options 1 and 2), Part C "Free Elective Study Courses" 2CP(3 ECTS) (Options 1 and 2), Part D Internship - 6CP(9 ECTS) (Option 1) and 20CP(30 ECTS) (Option 2), Part E Master Thesis 20CP(30 ECTS) (Options 1 and 2). The total programme is 60CP(90 ECTS) (Option 1) and 80CP(120 ECTS) (Option 2).

In option 1 and option 2 of the implementation of the study programme the content of the study programme is identical, the difference is only in the amount of the practice implemented in each option in accordance with the requirements of Cabinet Regulation No. 305, "Regulations on the state standard of professional higher education", regarding the scope of the practice: option 1 for students with previously acquired first cycle vocational higher education, the internship is 6 CP (9 ECTS). In option 2, students with previously acquired academic education have two internships - 6 CP (9 ECTS) and 20 CP (30 ECTS) in order to provide these students with the opportunity to acquire the missing competencies. This ensures the fulfilment of equivalent study content and the acquisition of the results to be achieved.

The content of the study programme is constantly updated and improved in line with the latest trends in occupational safety and health, fire safety and civil protection, as well as the situation on the labour market and its requirements. To ensure that the programme remains relevant, it is regularly revised by replacing existing courses or by adding new courses of relevance. The information included in the study courses follows from the study course objectives and the results to be achieved, which, in turn, follow from the objective and the results to be achieved of the program. The connection is clearly visible in the mapping of the study program (Annex 8). Each course of study has a defined objective and deliverables. The knowledge, skills and competences of all study courses are linked and subordinated to the objectives and outcomes of the study programme.

The study programme ensures that the content of study courses is up-to-date and relevant to the needs of the industry, the labour market and the latest scientific knowledge by regularly (at least once a semester) reviewing and analysing the suggestions of students, teaching staff and other stakeholders.

In order to ensure the quality of the programme, changes were made to the content and structure of the programme during the reporting period, which were necessitated by the recommendations gathered in the questionnaire results, as well as by changes in the regulatory enactments and the occupational standard.

**In the academic year 2013/2014**, the Professional Master's study programme "Occupational Safety" has only made changes to the content and structure of the compulsory Part A. The course Business Economics 2CP has been replaced by Enterprise Economics 3CP. The course Labour Psychology and Ergonomics 2CP was included and outdated or obsolete courses were excluded. In the B1 section of the specialised study subjects of the compulsory elective Part B, the study course Dangerous Industrial Equipment and its Monitoring 2CP was replaced by Dangerous Equipment and Electrical Safety 3CP. The Civil Defence and Fire Safety 3CP course was transferred from the compulsory Part A to the specialised subjects section of Part B and obsolete courses were closed.

In the academic year 2014/2015, following the initiative and consultations of the students, proposals for changes in the study courses were prepared, introducing the study course "Scientific Seminars" 3CP from the academic year 2015/2016, which is necessary for the improvement of student's creative development in the field of scientific research.

**In the academic year 2015/2016** the following changes were made in the Professional Master's study programme "Occupational Safety": in the list of compulsory part A study subjects the study course "Enterprise economics" 3CP was replaced by "Scientific Seminars" 3CP. The study course "Fundamentals of Labour Protection Law" 3CP was replaced by "Topical Problems of Labour Safety Law" 3CP.

**In February 2022**, the content and structure of the Professional Master's study programme were changed: the study course Labour Psychology and Ergonomics 2CP was removed from Part B1 and the study course Occupational Safety and Environmental Protection 2CP was included.

**In May 2022**, the following changes were made to the study programme to reduce the fragmentation of the programme content: In Part A, low-credit courses were closed and replaced by a new course, Occupational Health and Ergonomics 5CP. The study course "Safe Working Practice with Dangerous Substances 2CP" and "Civil Defence and Fire Safety 3CP" have been transferred from Part B of the restricted elective professional specialisation to the compulsory Part A. The study course "Scientific Seminars" 3CP and "Business Management" 2CP were transferred from the compulsory part A to the restricted elective professional specialisation part B1. In the restricted elective part, non-relevant courses were closed.

**In November 2022**, the number of credits in the restricted elective B part of the programme was changed from 14CP to 12CP due to changes in legislation. Section B5 "Pedagogy and Psychology Courses" of 2CP was excluded. Free elective Part C was included in the study programme, amounting to 2CP.

The study programme is regularly developed, taking into account the recommendations and requirements of students, graduates and employers. Further implementation of the recommendations gathered from students, graduates and employers is given in Annex of Paragraph 2.2.4 " *Analysis and evaluation of the results of student, graduate and employer surveys and their use in improving the content and quality of studies, giving examples for each of the programmes included in the field of study.*

Before the start of the semester, each member of teaching staff should review the course description, assessing the current course objectives and expected learning outcomes, and review the proposed teaching materials and literature sources, making sure that the literature is up-to-date and that the latest research in the field is presented. To ensure complementarity and non-

overlapping of courses, the structure of the study programme is regularly discussed by the teaching staff. As a result of this collaboration, a number of changes were made to the content and structure of the study programme and the number of low-credit courses was reduced by combining or replacing them with higher-credit courses.

Practical and theoretical research play an important role. Students develop their theses and dissertations on topical issues in the field by researching and analysing scientific and professional literature in libraries and international databases. Students use the acquired knowledge and insights both during their studies and during their internship when analysing issues related to fire safety and civil protection. Students present their research results at the annual RTU Students' Scientific Conference and summarise them in diploma projects, which are publicly defended at the end of their studies.

The choice, scope and content of study courses, as well as the content of internships, of the Professional Master's study programme are designed in accordance with the professional degree and qualification to be obtained in accordance with the occupational standard for chief specialist in occupational safety.

Following industry and scientific trends and feedback from employers, changes are made to the content of the programme as necessary, and the content of the courses is updated annually.

After graduating from the Professional Master's degree programme "Occupational Safety", one can continue your education in a doctoral programme.

**3.2.2. In the 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. In the 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 (if applicable).**

The Professional Master's degree programme "Occupational Safety" is based on studies integrated in the social sciences, which are often interdisciplinary, as they concern the acquisition of competences such as the organisational structure of occupational health, training of occupational health professionals, detection of occupational diseases, accident investigation and recording, compulsory health checks, employee rights and obligations, emergency response, occupational health, teleworking, etc. In order to successfully implement the study programme and to ensure the acquisition of appropriate competences by the programme graduates, the study courses of the study programme are developed in such a way that they also incorporate the latest scientific and research findings in the relevant field. These findings are also included in the scientific articles of the faculty members, which can then be used by students as recommended reading for their course of study. In addition, a 3CP course "Scientific Seminars" was introduced in the study programme.

This study course prepares students for the understanding of the nature of research in social sciences and acquisition of research methodology. The students must learn to conduct the research and implement all stages thereof, starting from interview/ creation of a questionnaire, analysis of qualitative and quantitative data and ending with data analysis, interpretation of results and integration of the research into the final master's paper. After the acquisition of the course, the students are aware of the logical link between the components of research, they are able to define the objective of research and set appropriate tasks for reaching the objective. During the acquisition of the study course, the students receive insight into how thought develops during

research, starting from inductive thinking, literature analysis and putting forward a hypothesis and continuing with the deductive conclusion, which is tested in the empirical part of the research. The general aim of the study course is to provide in-depth knowledge on the subject matter of research in social science, its main characteristics and structural elements thereof, as well as to develop the ability to analyse the organisational principles of research and the phases of the conduct of research; develop the ability to independently write a paper on the topic of own Master's thesis and present it at a student conference. Several objectives have been set for the reaching of the objective of the study course: 1. To provide in-depth knowledge on contemporary research methods. 2 To develop practical skills in the processing and interpretation of obtained data. 3. To promote the ability to develop the methodology of research - to identify the examined problems in occupational safety, to formulate research questions, to define the objective and tasks of the research, to identify and select the most appropriate research methods, and to formulate the hypothesis of the research. The independent work shall be individually implemented by each student. The independent study work involves the independent acquisition of scientific literature, specialised press publications and statistical data, as well as the analysis and systematisation of different research methods. Students conduct individual literature studies on a different aspects of research. The development of the project methodology, interview/ questionnaire form and pilot survey is performed independently. In accordance with the results of the performed survey, the student analyses data, interprets results, sets theses and presents them at the student conference.

For example, in the academic years 2016/2017 and 2018/2019, a "round table" was organised for Master's students within the course "Scientific Seminars", during which the scientific developments of future Master's thesis topics were presented. In 2021, after the 62nd Student Scientific and Technical Conference of Riga Technical University, a collection of abstracts was published <https://ebooks.rtu.lv/product/tehnogenas-vides-drosiba/?lang=en> , in which eleven research abstracts presented by graduate students were published. The abstracts in the collection cover topics such as reducing workplace risk factors, the impact of teleworking on employees, and improving the occupational health and safety system. On 22 April 2022, RTU IEVF DCAI in cooperation with the Council of the Baltic Sea States organised an international scientific conference "What is the new normal in societal security?"

<https://cbss.org/event/conference-what-is-the-new-normal-in-societal-security/> . The aim of the conference was to promote international cooperation between the countries of the Baltic Sea Region and to share their research, knowledge and experience. During this international scientific conference, eleven 2nd year students of the study programme "Occupational Safety" presented their scientific papers on topics such as: "Improving the practical implementation of occupational safety legislation in hazardous sectors", "The impact of firefighter-rescuer protective clothing monitoring", "Implementation of the LEAN system approach in a metalworking company in a repairer's working environment", "Improving the occupational safety system and integration of foreign guest workers in the occupational safety environment", "Improving the use of collective safety equipment on construction sites", "Electrostatics as a risk factor in grain processing", "Psycho-emotional environmental risks in construction and possibilities for their reduction", "Improvement of the system of occupational safety legislation in professional military service", "Reduction of the impact of risk factors and occupational diseases in public institutions", "Improvement of occupational safety requirements by taking measures in case of leakage of hazardous chemical substances", "Reduction of ergonomic risks in fire-fighting and rescue work". The introduction of the study course "Scientific Seminars" allows not only to ensure the acquisition of this study programme in accordance with the requirements of the Law on Higher Education Institutions and the Law on Professional Education but also to ensure the continuity of the acquired competencies so that the programme graduates can successfully continue their education in doctoral studies, as provided by the study programme structure and further education opportunities. An example of such continuity is the graduate of this programme Mihails Urbāns, who, after

graduating from the "Occupational Safety" programme and obtaining a Professional Master's degree, continued his studies in a doctoral programme, successfully defended his doctoral thesis and has now joined the faculty of the Institute of Occupational Safety and Civil Protection as a docent and researcher. Lecturer Inese Vilcāne, after graduating from this study programme and obtaining a Professional Master's degree, continues her doctoral studies at RTU and Tallinn University of Technology (Estonia). Lecturer Guna Bazonė is also a graduate of the Occupational Safety programme and is currently pursuing her PhD studies at RTU. Lecturer Matīss Šmitiņš, after completing the Professional Bachelor study programme "Safety Engineering", continued his studies in the study programme "Occupational Safety", obtained a Professional Master's degree and is now continuing his doctoral studies at RTU. Lecturer Jānis Bartušauskis also graduated from the "Occupational Safety" programme and entered the RTU PhD programme. These examples demonstrate that the degree and qualification awarded are in line not only with professional competencies but also with the latest scientific and research trends in the field, enabling graduates to pursue successful careers as senior occupational health professionals in the public and private sectors, as well as providing the relevant knowledge to pursue a professional career and to continue their studies and work in academia.

**3.2.3. Assessment of the study programme including the study course/ module implementation methods by indicating what the methods are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. In the case of a joint study programme, or in case the study programme is implemented in a foreign language or in the form of distance learning, describe in detail the methods used to deliver such a study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

The Professional Master's study programme "Occupational Safety" provides for the study of study courses ensuring the achievement of professional competence in lectures, practical classes, practical work in laboratories and literature studies. The programme provides students with professional knowledge in their field of specialisation, creating skilled commercial and public administration employees. In order to ensure the achievement of the goals and objectives set for the programme in the best possible quality, the study programme includes theoretical and professional specialisation study courses in the field - general study courses in the field, which form the basis for acquiring specialised knowledge and practical skills during further studies, as well as ensure the acquisition of practical skills necessary for professional activity. The didactic concept of the study programme is based on the use of the latest and most advanced teaching methods. It provides for the development and organisation of study content that ensures the sequential and in-depth acquisition of the knowledge provided for in the study programme and is oriented towards real practical examples and problem solving, in-depth study of theoretical and practical issues of occupational safety, fire safety and civil protection. This includes stimulating learning methods, as well as collaboration between students, lecturers and internship supervisors. The study programme also uses group work, situation analysis, seminars, discussions and study excursions to reinforce what has been learned. For example, the study course "Labour Protection and Safety" includes study excursions to the company "Latvijas finieris", during which students have the opportunity to learn how occupational safety protection methods and laws and regulations are implemented at the company. As part of the same course, the Technical Director of SIA Insalvo gave a lecture on specific risks in hazardous industries and the regulatory framework. Within the study course "Civil



Defence and Fire Safety", students have practical work in the fire safety and civil protection laboratory. In the framework of the study course "Business Management", an online guest lecture on "The Power of a Professional Application" was held for 1<sup>st</sup>-year students, led by the MSC HR Manager in the Baltic States. Within the framework of the study course "Safe Working Practice with Dangerous Substances", a guest lecture "Working with chemicals - in the context of dangerous goods transport" was held for 1<sup>st</sup>-year students by the head of the labour protection branch of SIA "GRIF". The study programme also includes a 3CP course "Scientific Seminars", which prepares students to understand the nature of research in the social sciences and to learn research methodology. The students must learn to conduct the research and implement all stages thereof, starting from interview/ creation of a questionnaire, analysis of qualitative and quantitative data and ending with data analysis, interpretation of results and integration of the research into the final master's paper. After the acquisition of the course, the students are aware of the logical link between the components of research, they are able to define the objective of research and set appropriate tasks the reaching the objective. During the acquisition of the study course, the students receive insight into how thought develops during research, starting from inductive thinking, literature analysis and putting forward a hypothesis and continuing with the deductive conclusion, which is tested in the empirical part of the research. Students present their research abstracts at both national and international student scientific and technical conferences. The introduction of such a course of study is evaluated as very successful, as it not only improves students' scientific and research skills but also ensures the continuity of the acquired competences so that graduates of the programme can successfully continue their education in doctoral studies.

The study programme is implemented in compliance with the requirements formulated in the regulatory enactments, the basic principles of study organisation established by RTU and all the requirements of the study courses. The course descriptions of the study programme define the set of relevant knowledge, skills and competences and their assessment system, and define the study outcomes for the achievement of which credits are awarded. The procedure for evaluation of students' knowledge, skills and competences is determined by the "[Regulations on Evaluation of Study Results](#)" Approved by the decision "On the Regulations on Evaluation of Study Results", adopted by the RTU Senate on 30 May 2022 (Minutes Decision No. 663) and the decision of the Senate "[On Approval of the Regulations on Final Examinations at Riga Technical University in a New Wording](#)" (only Latvian) (RTU Senate meeting of 26 April 2021 (Minutes No 649 )), which comply with the basic principles and procedures of education evaluation defined in the Regulations of the Cabinet of Ministers of the Republic of Latvia at the respective study level. The summative marking system is used to assess student achievement, where the final mark is made up of several components.

Part-time corresponds to less than 40 CP per academic year, which allows for less than 40 credits of study per academic year. The duration of part-time studies is longer than that of full-time studies (<https://www.rtu.lv/lv/studijas/studiju-reglaments> only Latvian). Pedagogical methods of implementation of study courses, as well as evaluation methods are selected by the teaching staff responsible for the study course, according to the course content and study programme specifics, as well as the needs of the students.

As part-time students mostly have practical work experience, teaching methods such as lectures, practical work, group work, homework and research are used more, with different situations analysed and explained from both theoretical and practical perspectives. The emphasis in part-time study is on the student's independent work, using both problem-based learning and situational analysis, as well as the lecturer's advisory role.

The programme is implemented using RTU's interactive e-learning environment, built on the Moodle platform, which is regularly used by students, academic staff and guest lecturers. The portal



provides the student with access to all the up-to-date information during the study process. It provides access to current study courses (annotations, requirements for successful completion of the study course, lecture plan, lecture and practical materials, required literature, etc.), information on student's performance and passed study courses, current reports, library information, access to educational and scientific literature, access to databases, e-mail, etc. In the e-learning environment, teachers upload various tests and assignments for self-monitoring of the student's knowledge, and the system also allows for various midterm and final examinations. Teaching staff also post information about online lectures in the e-learning environment. This portal allows to communicate with any member of staff and, for current courses, also with fellow students. The portal has discussion forums, regular surveys on the content, quality and presentations of the teaching staff member who deliver the courses.

In academic matters, individual approach is ensured in accordance with the methodology approved by the Order of the Rector of RTU "On guidelines for planning the work of a teaching staff member", which stipulates that a teaching staff member must provide consultations for every 25 students in a lecture stream in the amount of 15% of the amount of lecture hours. In addition, there are separate consultation hours for supervising coursework and projects, internships and final projects. Pre-exam counselling is organised before the exams. If necessary, students can directly contact the lecturer outside the consultation hours by posting their questions in messages or in the relevant course forum in ORTUS, or by e-mail.

At the end of each semester of each study course, the course teachers submit the course evaluations to the registry office and record them in the ORTUS system for the specific study course. The results of students' studies are analysed both in course group meetings with students and in meetings organised by the study programme administration.

DCAI provides teaching and methodological work: establishes and updates study subject programmes, provides teaching of relevant study subjects, conducts and defends qualification theses and carries out other activities related to teaching, methodological and scientific work.

The study process is designed as an active, engaging process for students, including lectures, seminars, discussions, solving situations and practical tasks, individual and group work, including research work, study excursions to companies and field trips, internships, guest lectures by representatives of the field.

The results of the assessment of students' knowledge are discussed twice a year (at the end of each semester) at a meeting of the department, they are collected and evaluated by the study programme administration, and they serve as a basis for further improvement of the study process. Discussion and analysis of learning outcomes is carried out in cooperation with the teaching staff involved in the study programme, as well as with the students - at the senior level of the course groups, the learning outcomes are analysed in a detailed and personalised way.

Each course description contains a section on the skills and competences to be acquired in the course (see the Course Register in ORTUS). In line with the latest trends in occupational safety, fire safety and civil protection, it is necessary to analyse different situations that contribute to students' problem-solving skills by carrying out this work independently and/or individually. Students should also take note of the existing laws and regulations governing occupational safety, fire safety and civil protection in Latvia. Students always have the opportunity to express their views in dialogue and to share their professional experiences, thus explaining the issues at stake on the basis of examples and thus understanding the essence of the course.

The programme is completed by a **state examination**, which is graded according to a ten-point system and includes the defence of the Master's thesis. The criteria for the defence of the Master's

thesis are:

- systematising, updating and extending theoretical and practical knowledge, individual experience and experience gained through study internship;
- independent analysis of educational and scientific literature, legislation and regulations relevant to the chosen specialty, mass media and other information sources, including in foreign languages;
- the problems to be investigated, which include individual and complex novelty elements, and the problem-solving skills to combine them with theoretical frameworks;
- analysis, systematisation and recommendations of current applied problems;
- developing and planning practical management and professional solutions;
- the ability to present research and practical results.

The diploma is awarded to graduates who have completed the programme and passed the national exam with a score of at least 4 (almost average).

For administrative matters, students are given the opportunity to meet with the programme management during office hours to resolve individual issues. In problematic situations, students are invited to discuss with the programme management. Information of an operational nature is posted on the website, messages are sent to students via the ORTUS system, and e-mail and telephone are used for individual communication. Regular meetings are organised between students and the programme director, giving students the opportunity to discuss and debate current issues. This helps to maximise the quality of the learning process by responding to student input.

The principles of student-centred education are therefore taken into account throughout the entire study process.

#### *1. Student involvement in the study process and content development*

RTU has developed procedures to provide students with feedback on the quality of the study process (questionnaires, regular student meetings with the programme director), thus students have the opportunity to influence their study process. Students are regularly involved in the evaluation of the quality of study programmes, participate in decision-making and advisory bodies, and organise meetings with the programme director to discuss the positives and negatives of the semester courses, as well as the competence, ability, attitude and quality of each member of the teaching staff. This gives students the opportunity to influence and contribute to improving the study process.

The University has appropriate procedures for the submission and resolution of student proposals and complaints [https://www.rtu.lv/writable/public\\_files/RTU\\_studeoso\\_priek\\_un\\_sudz\\_iesn\\_un\\_izsk\\_kart.pdf](https://www.rtu.lv/writable/public_files/RTU_studeoso_priek_un_sudz_iesn_un_izsk_kart.pdf) (only Latvian) . The complaints process is channelled through the Programme Director and the Head of Department, the Head of the Department of Studies or even the Vice-Rector of Studies, if necessary. In the "Occupational Safety" programme, students first work with the Programme Director to solve problems, thus responding to issues in a timely manner. This approach allows problems or disagreements to be resolved at an early stage and prevents problems from escalating.

#### *2. Learning outcomes*

The programme's course grades and number of credits are linked to the learning outcomes. Students are informed about the learning outcomes of each course in the first lesson. The teaching staff relate the results of the course of study to the results of the study programme, as well as argue for the necessity of acquiring the information of this course in order to obtain the professional

qualification of "Chief Specialist in Occupational Safety". Teaching staff of study courses take into account and respect the diversity of students and the diversity of their needs, using different ways of implementing the programme, according to the abilities of the students. At the end of the course, students evaluate the performance of each member of staff by completing a course evaluation questionnaire. Students of the study programme are also regularly included in the RTU Gold Fund <https://www.rtu.lv/lv/studentuserviss/karjeras-centrs-ssc/projekti-un-seminari/rtu-zelta-fonds>. The Golden Fund includes, in each academic year, the students who are the best graduates of that academic year. The Gold Fund Ceremony is a celebratory event that brings together the very best in a special atmosphere, while also fostering a sense of belonging to your university. In the reporting period, 11 graduates of the study programme "Occupational Safety" have joined the Golden Fund: Māris Veigurs (2012/2013), Eva Upeniece (2014/2015), Jeļena Rībeniece (2015/2016), Jānis Prindulis (2016/2017), Guna Bazone (2017/2018), Evita Biezmane (2017/2018), Edgars Mežvēveris (2018/2019), Andrejs Rogovs (2018/2019), Jānis Mucenieks (2019/2020), Aiva Apša-Kļšeniece (2019/2020) and Lana Pētersone (2020/2021). Taking into account that the total number of graduates included in the RTU Gold Fund in 2022 is 1194 graduates, the share of graduates of the study programme "Occupational Safety" in the Gold Fund only for the reporting period is approximately 0.9% of all graduates included in the RTU Gold Fund. This can be considered a good indicator, especially taking into account the relatively small number of students in the study programme in relation to other RTU study programmes, where the number of students tends to be several times higher.

### *3. Mobility*

In the implementation of the study programme, students have the opportunity to attend lectures given by lecturers from foreign universities, which allows the lecturers and students involved in the implementation of the programme to adopt good practices that can be shared with the guest lecturers.

Students and teaching staff benefit from mobility opportunities. For example, under the ERASMUS+ programme, from 01.05.2022. to 07.05.2022, a 1st year student of the Professional Master's study programme "Occupational Safety" participated in a five-day intensive training at Laurea University (Finland) within the activities of the international NEEDS project. Within the activities of the same international project, from 11.09.2022. to 17.09.2022 Latvia, as a cooperation partner and host country of the project, organised an intensive training week at the RTU Sports and Conference Centre "Ronīši", which was attended by 16 foreign students and two 2nd year students of the professional master's study programme "Occupational Safety". A total of 18 students from the following countries took part in the intensive training week from 11.09.2022 to 17.09.2022 at RTU Conference and Sports Centre "Ronīši" as part of the NEEDS project: The intensive training process was coordinated by project partners from Latvia (Riga Technical University), Norway (The Arctic University of Norway), Finland (Laurea University of Applied Sciences), Poland (Main School of Fire Service), Sweden (Swedish Defence University) and Finland (Laurea University of Applied Sciences). The students were advised and lectured by project partners from Latvia (Riga Technical University), Norway (The Arctic University of Norway), Poland (Main School of Fire Service) and Sweden (Council of the Baltic Sea States). During the intensive training week that took place within the framework of the project, practitioners from Hamburg Fire and Rescue Service (Germany), Tallinn Municipal Police (Estonia), Lahti Municipal Police (Finland), State Fire and Rescue Service and Liepāja Municipal Police (Latvia) shared their practical experience with Latvian and foreign students and gave lectures.

The full student mobility is presented in the Annex "Statistical Data on Student Outgoing Mobility in the Study Field" in Part II, and the mobility of teaching staff in the Annexes "Outgoing mobility Erasmus Staff" and "Outgoing mobility Staff OTHER".

#### *4. Social dimension*

The study process is flexible enough to allow students to combine their studies with work, family life and various extracurricular and social activities during their studies. This is also ensured by the fact that in-presence lectures are organised in the afternoons, as according to the results of alumni surveys and taking into account the specific nature of the programme, 90% of students work during their studies. The flexibility of the study process is also demonstrated by the fact that students actively implement different types of social dimensions both during and outside their studies at RTU. Graduates of the study programme have been repeatedly included not only in the RTU Golden Fund, but also actively participate in the RTU Student Council, participate in RTU sports events, sing in choirs, dance in dance groups, participate in the development and promotion of various informative seminars and educational materials, etc. For example, Jeļena Rībeniece, who was included in the RTU Golden Fund of the 2015/2016 academic year, actively participated in the RTU Student Parliament and RTU MTF Student Council, while Edgars Mežvēveris, who was included in the RTU Golden Fund of the 2018/2019 academic year, has participated in the organisation of scientific and practical conferences in cooperation with RTU and AS "Rīgas siltums".

To ensure social accessibility at all levels, the study programme is taught in facilities that are accessible to people with reduced mobility. A student dormitory is available for students of the programme, if needed. It is also worth mentioning that the RTU library is open to students 24 hours a day, as well as on weekends.

#### *5. Teaching and learning methods*

Pedagogical methods, teaching, learning and assessment methods are regularly assessed. For example, study projects are developed, group work takes place, and in some courses, a method is used that allows students to assess and learn from each other and share their experiences with others. Guest lectures are also held on a regular basis. Students have the possibility to receive individual counselling from teaching staff via ORTUS, email and telephone, as well as in-presence individual counselling if needed. The programme constantly reflects on improving the form and process of study. The changes are mainly focused on replacing the learning style with "teaching to learn" and integrating information technology into the study process. For example, in light of the remote learning experience during the pandemic, a Samsung Flip 3 interactive whiteboard was purchased in 2022 to make the learning process more efficient and up-to-date by providing an interactive learning experience and expanding the resources available to faculty to better integrate modern teaching and learning methods into the learning process.

Currently, special attention is paid to one of the most common methods of active study work - the analysis of situational tasks or situations (case studies), where the factual material of foreign and domestic companies is mainly used. It should be noted that the faculty has developed a series of situational exercises as part of the programmes.

#### *6. Learning environment*

The programme involves collaboration between librarians and academic staff to improve teaching and learning. In the first year, students are introduced to the resources and databases available in the library. Teaching staff involved in the programme and students also have access to research and learning facilities with appropriate equipment. Both students and teaching staff can use the Bloomberg Laboratory, the Occupational Health Laboratory and the Fire and Civil Protection Laboratory for their research projects. For example, using the possibilities provided by the laboratories, the Master's thesis "Analysis of fire extinguishers, choice of application methodology" was produced in 2017, "Improvement of working conditions in firefighting in an unsuitable environment for breathing" in 2018, "Reducing the human impact of fire hazards through

surfactants" in 2020, etc. Students have access to databases of scientific articles. Taking into account that the Professional Master's study programme "Occupational Safety" is implemented only as a part-time studies, which is often attended by students from remote regions of Latvia, all information and study materials necessary for the study process are available online in the ORTUS environment for the convenience of students. To ensure social accessibility at all levels, the study programme is taught in facilities that are accessible to people with reduced mobility. A student dormitory is available for students of the programme, if needed. It is also worth mentioning that the RTU library is open to students 24 hours a day, as well as on weekends.

### *7. Competence development of academic staff*

DCAI training and qualification improvement is provided to the academic staff through various special courses or seminars in Latvia and abroad, participation in organisational and methodological work, participation in international projects, work of other organisations, practical work as consultants, as well as annual participation in conferences and methodological seminars organised by RTU and other higher education institutions. Lessons learned from further training and research are incorporated into teaching. For example, in the academic year 2021/2022 the teaching staff Jānis Ieviņš, Jānis Bartušauskis and Matīss Šmitiņš underwent 200-hour academic staff internships at SIA "Latvijas standarts" and SIA "Milzu!" within the framework of the specific support objective SAM 8.2.2 "Strengthening academic staff of higher education institutions in areas of strategic specialisation" of the European Social Fund project "Strengthening academic staff of Riga Technical University in areas of strategic specialisation" No 8.2.2.0/18/A/017 under the activity programme "Growth and Employment". The insights gained during the internship were used to improve the content of the study programme courses.

A more detailed analysis of the professional development and competences of the academic staff involved in the implementation of the study programme is provided in Section 3.4.1.

### *8. Extra-curricular activities of the students*

The programme management supports students' self-growth and creative development, thus allowing students to develop their independence, giving them the opportunity to implement their ideas, as well as opportunities for additional learning outside lectures. Everyone in the programme is offered opportunities to participate in extracurricular activities organised by RTU (sports teams, dance groups, choirs, etc.), and any other extracurricular activities are welcomed and encouraged. All this encourages an active extra-curricular life and extra-curricular opportunities for students. Given that most students are already working people with work experience, their extra-curricular activities are often related to their professional activities, community education, various personal hobbies or social volunteer work.

Students' extra-curricular activities also include participation in activities that promote and educate the public on occupational health, safety and fire safety issues. For example, Māris Veigurs, who was included in the RTU Gold Fund for the academic year 2012/2013, has participated in the project for pre-school educational institutions "Baltin's School", which educates children about fire safety and fire safety issues, as well as in the project for school-age children "Safe Summer - Your Summer!". Eva Upeniece, who was included in the Gold Fund for 2014/2015, has been involved in the Latvian Association of Occupational Safety Specialists, has developed a reminder for stokers on safe working practices, has been involved in developing booklets for pressure equipment operators on safe working practices, and was an organiser of seminars on "Topical issues in occupational safety and health". Jānis Prindulis, who has been included in the 2016/2017 Gold Fund, has been actively involved in the field of industrial risk management in Latvia for a long time (training of employees of industrial facilities, as well as improving the knowledge of employees of state and municipal authorities and rescue services. Participation in spatial planning issues in Latvian cities,

choosing the most mutually beneficial solutions for society and business). He has also contributed to the development of guidelines for minimum safety distances for the siting of industrial accident risk facilities and restrictions on land use and development in spatial planning documents. Evita Biezmane, who is included in the 2017/2018 Golden Fund, is a long-time participant of the Song and Dance Festival, a high school volleyball team coach and a referee of basketball and volleyball competitions at various levels, a participant of all Lattelekom 21km marathons since 2009 and a participant of the Stirnu Buks trail run series (20-37km) since 2016. Andrejs Rogovs, who has been included in the 2018/2019 Gold Fund, has been volunteering from 2010 to 2019 to improve the local area, including nature and infrastructure, in order to improve the accessibility, quality and reachability of services.

Students are also involved in scientific work and research on topical issues in the field, participating in both local and international conferences. For example, in 2021, during the 62nd RTU Students' Scientific and Technical Conference in the section "Safety of the Technogenic Environment", students of the Professional Master's study programme presented their research projects, thus obtaining a credit in the study subject "Scientific Seminars". The conference was followed by the publication of a collection of abstracts (<https://ebooks.rtu.lv/product/tehnogenas-vides-drosiba/?lang=en>). On 22 April 2022, the Institute for Occupational Safety and Civil Protection, in cooperation with the Council of the Baltic Sea States, organised a conference "What is the new normal in societal security?" within the Erasmus+ project NEEDS "Needs-based education and research in societal security"., attracting not only DCAI students but also international students, lecturers and practitioners from other Baltic Sea Region countries.

From 2011 to 2014, the scientific journal "Safety of the Technogenic Environment" was published in 6 volumes. The collection included scientific articles reflecting contemporary technogenic environmental security issues in the context of new economic and global developments. The collection included research results of Latvian and foreign scientists, academics, PhD students and students. Since 2014, it has been decided to close the magazine for financial reasons. Now the publications are included in the journal "The Baltic Journal of Real Estate Economics and Construction Management" published by RTU IEVF Faculty in cooperation with two partner universities in the Baltic region - Tallinn University of Technology (Estonia) and Vilnius Gediminas Technical University (Lithuania) and in the scientific journal "Rural Sustainability Research" of Latvia University of Agriculture.

**3.2.4. If the study programme envisages an internship, describe the internship opportunities offered to students, provision and work organization, including whether the higher education institution/ college helps students to find an internship place. If the study programme is implemented in a foreign language, provide information on how internship opportunities are provided in a foreign language, including for foreign students. To provide analysis and evaluation of the connection of the tasks set for students during the internship included in the study programme with the learning outcomes of the study programme (if applicable).**

Internship outside the educational institution is an integral part of professional programmes to be performed by students in accordance with the Regulation of the Cabinet of Ministers of the Republic of Latvia of 21 June 2023 No. 305 "Regulations on the state standard of professional higher education", Senate of RTU of 30 March 2020 (Minutes No.638), as amended: 21.11.2022 (Minutes

No. 667, entered into force on 22.11.2022), Decision "On Approval of the New Wording of the Unified Requirements for Study Programmes of Riga Technical University" and Decision of the RTU Senate of 28 January 2019, Minutes No 626 "On Approval of the New Wording of the Procedure for Organisation of Internships at Riga Technical University". The internship is conducted in accordance with the regulations, the general rules of which have been established by the RTU Senate. The content of the internship is determined by the "Methodological Instructions on the Organisation, Implementation and Defence of the Internship in the Professional Master's Study Programme "Occupational Safety"" adopted by the Department of Occupational safety and Civil Protection. The internship guidelines are available in ORTUS (for authorised users), from programme directors, practice coordinators and the head of the training office. The normative documents regulating the activities of the University are available at the programme administration and on the RTU website ORTUS on the Internet.

Students studying a professional education programme need to combine theoretical knowledge with practice. Option 1 of the Professional Master Studies programme "Occupational Safety" provides an internship of 9 ECTS (6CP), while Option 2 (for students with prior academic education) provides an internship of 39 ECTS (26CP).

The internship placement is provided to the student by concluding an appropriate agreement between RTU, the student and the company. If the student is not employed anywhere, the placement is provided by the department or RTU offers the assistance of a Student Career Support Officer who can find a suitable placement.

During the reporting period, 190 trainees have completed internships at 146 internship sites in the study programme "Occupational Safety". The most popular internship sites with the highest number of trainees are the State Fire and Rescue Service (19 trainees), VAS "Latvijas dzelzceļš" (9 trainees), SIA "FN-SERVISS" (4 trainees), State Labour Inspectorate (3 trainees), RP SIA "Rīgas satiksme" (3 trainees), etc.

The purpose of the internship is to obtain the practical skills of independent work; systematize, strengthen and expand theoretical and practical knowledge; strengthen the existing knowledge, solving occupational safety tasks; develop work skills with specific data of the national economy, industry or company; to develop the ability to prove the importance of the problem under consideration, as well as to develop and show ways of solving it. In accordance with the degree obtained at the end of the professional studies "Professional Master Degree in Occupational Safety" and the relevant qualification, during the internship the data necessary for the development of the analytical and practical sections of this work are obtained. Independent work is organised according to the internship assignment, which includes: selecting the research object based on the topic, aims and objectives of the Master's thesis; collecting and compiling materials regulating the activity of the research object; developing a problem-solving plan; developing proposals for problem-solving and validating them. During the internship, practical skills are acquired in independent work, which is assessed by the internship supervisor on the basis of the quality of the work carried out. The practical work is used to systematise, consolidate and extend theoretical knowledge, which is reflected in the internship report and assessed in the internship defence. The internship results in the consolidation of existing knowledge through practical solutions of occupational safety tasks, which are reflected in the internship report and in the Master's thesis, and are evaluated during the defence process. Work skills are developed, basing them on specific data of the national economy, industry or company, where the result is evaluated upon defending the internship report. As a result of the internship, the skill is developed to prove the importance of the problem under consideration, as well as to develop and demonstrate ways of solving it, taking into account occupational safety, economic, social and ecological interests in general. This skill is very necessary for the development of a high quality Master's thesis and is generally assessed at the

final examination. The final mark of the internship is a composite mark and consists of: the assessment of the internship, which consists of the feedback from the traineeship supervisor; the assessment of the internship report, which consists of the assessment from the internship coordinator; the assessment of the internship defence, which consists of the assessment from the internship assessment commission.

Employers with an internship contract, industry professionals with invaluable experience and the institute's faculty are involved in defining the goals and objectives of the internship, as well as in evaluating the internship. The aim of the internship is achieved on the basis of the knowledge, skills and competences acquired. This is also reflected in the evaluations of the internships throughout the year (see the figure below "% of total internships defended"), where 29% are evaluated with 7 points, 26% with 8 points, 18% with 9 points, 16% with 6 points, 7% with 10 points, 3% with 5 points and 1% with 4 points. Therefore, it can be concluded that in total 80% of all internships have been evaluated as "good", "very good", "excellent" and "outstanding", which shows that employers and internship supervisors in companies have confirmed that the knowledge and skills acquired by students meet the professional activity requirements set out in the professional standard.

The structure and other formal conditions of the Professional Master's study programme "Occupational Safety" comply with the requirements set out in the national legislation and the decisions of the RTU Senate. As a result of the studies, the student acquires knowledge and the necessary professional competence corresponding to the professional qualification of the 7th level "Chief Specialist in Occupational Safety" (according to Paragraph 10 of the Cabinet of Ministers Regulation No.723 the graduate of the study programme is equated to a competent specialist) and forms a certain level of culture and intelligence, as well as allows to start a professional activity corresponding to the specialty. The study material on the organisation of internships and the normative documents regulating the activities of the University are available at the programme administration and in the ORTUS system.

### **3.2.5. Evaluation and description of the promotion opportunities and the promotion process provided to the students of the doctoral study programme (if applicable).**

### **3.2.6. 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 marks of the final theses.**

The study programme "Occupational Safety" trains senior occupational safety professionals. Students in this programme are matriculated only after a Professional Bachelor's degree in occupational protection and safety; or a Professional Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent, and at least one year's professional experience in a field related to occupational safety, or Academic Bachelor's degree in environmental sciences, engineering and technology, public health, management science, law, physical sciences, life sciences or equivalent education and at least two years' professional experience in a field related to occupational safety. This means that students often already have prior knowledge and work experience in the sector, as

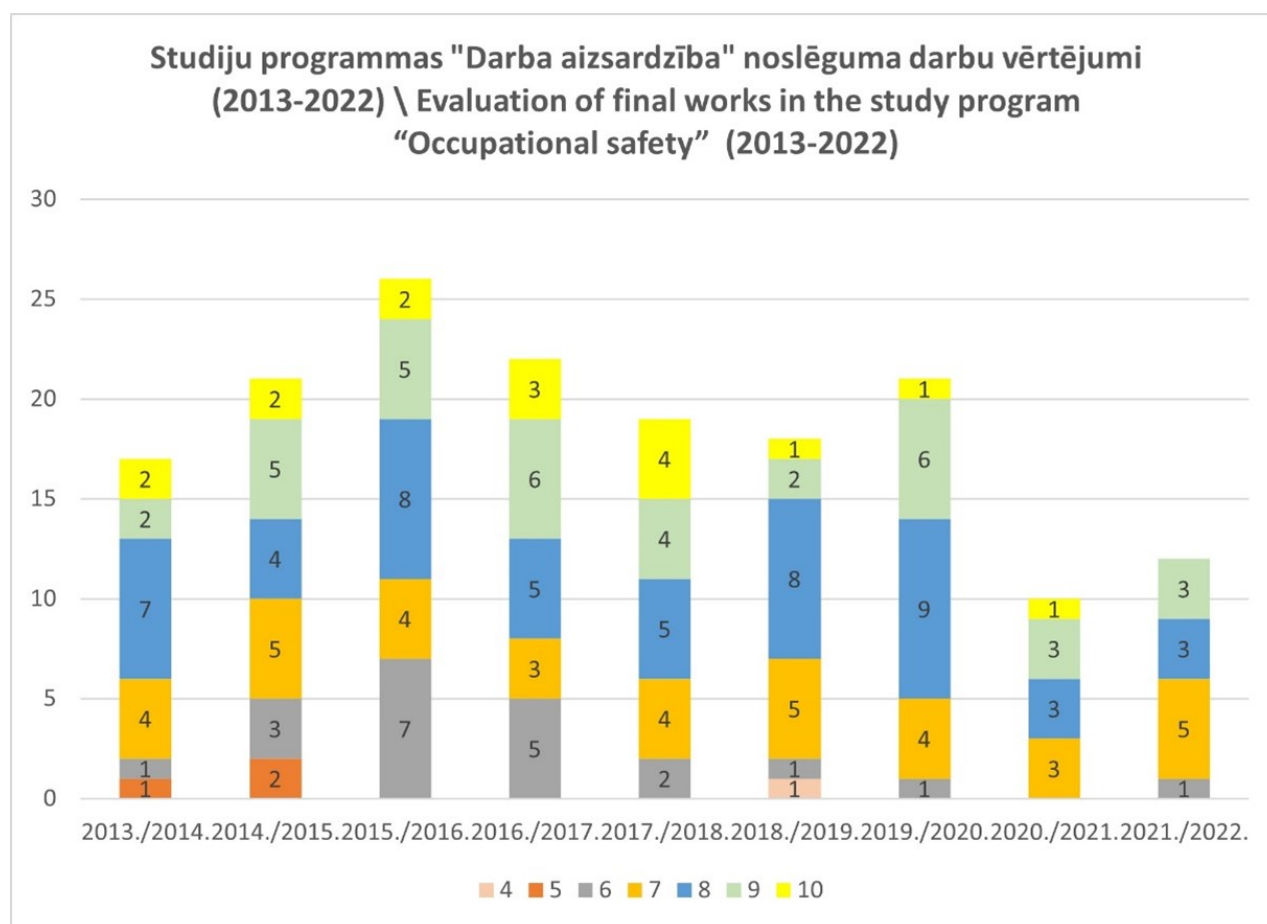


they are already working alongside their studies.

Students formulate and develop the topics of their Master's thesis according to the qualification they are obtaining, which means that they write about various occupational safety issues, their improvement, which is necessarily supported in the practical part with substantiated proposals. Master's theses state the topicality of the subject and analyse the sector under study.

At the end of the programme, students are required to produce a Master's thesis on a topical issue in occupational safety. The Master's thesis is publicly defended at the State Examination Commission. The Commission operates in accordance with the statutes approved by the Senate of the University and includes highly qualified specialists, as required. By participating in the final thesis defence commissions, industry representatives can give their suggestions on topics they would like to see students researching in the near future and which are relevant to the labour market. These suggestions are taken into account and the themes of the final theses are developed in line with the labour market and industry. This is positively perceived by employers and students are often invited to participate in projects organised by employers or offered positions in commercial or government structures.

The state and final forms of the examinations provide evidence of professional competence based on the theory of the relevant scientific discipline.



When analysed over all years of study, 9.63% of all graduates scored 10 (outstanding). 21.68% of graduates scored 9 (excellent), 31.32% scored 8 (very good), 22.28% scored 7 (good), 12.65% scored 6 (good), -1.8% scored 5 (average) and only 0.6% scored 4 (almost average) of the total number of graduates in the reference period.

Looking at the final theses grades, the average grade per year is: 7.8 points in the academic year 2013/2014, 7.6 points in the academic year 2014/2015, 7.7 points in 2015/2016, 8 points in

2016/2017, 8.2 points in 2017/2018, 7.7 points in 2018/2019, 8 points in 2019/2020, 8.2 points in 2020/2021 and 7.7 points in 2021/2022.

The aggregated evaluation data show that Master's theses are of high quality and in line with the current trends in professional activity.

The best Master's theses are produced in collaboration with the most outstanding companies or public institutions in the sector where the student has an internship or works. The best final theses are on topics such as:

- "Improvement of the occupational safety system and integration of Russian-speaking foreign migrant workers into the labour protection environment in Latvia" (2022)
- "Implementation of the LEAN system approach in a metalworking company in a repairer's working environment" (2022)
- "Solutions to reduce psycho-emotional risks in remote working" (2022)
- "Reducing the impact of shift rotation on workers' health and work capacity in Latvian manufacturing companies" (2021)
- "Improving occupational safety and health in fire and rescue operations using motorized saws and chainsaws" (2020);
- "Reducing workplace risks during installation and construction of high-voltage lines" (2019);
- "Improving the labour protection system and new forms of employment" (2018);
- "Improving the occupational safety monitoring system in the construction of multi-apartment buildings" (2018);
- "Risk assessment and mitigation options for acrylic acid nitrile (AAN)" (2018);
- "Improving working conditions in firefighting in non-respiratory environments" (2018);
- "Work-related musculoskeletal and connective tissue health risks and possible solutions for employees working at the road distance of VAS "Latvijas dzelzceļš"" (2017);
- "Psychosocial risks in fire rescue work, measures to reduce them" (2017);
- "Options and solutions for costing occupational safety measures in the construction sector" (2017);
- "Risks in industrial mountaineering and improving the safety system" (2016);
- "Health effects of ionising radiation and risk reduction for vehicle drivers" (2016);
- "Regulatory framework for the training of personnel involved in the operation of hazardous installations and its improvement" (2015);
- "Electromagnetic fields as a risk factor in the working environment and how to mitigate them" (2015);
- "Reducing occupational hazards in the handling of unit load cargo in ports" (2014);
- "Effectiveness, analysis and improvement of fire protection products for timber" (2014).

From 2013 to 2022, 166 students have graduated from the programme, with an average grade of 7.9 in their final theses.

### **3.3. Resources and Provision of the Study Programme**

**3.3.1. 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.

Information on the general resources and facilities available at RTU for the implementation of the study programme is described in Part II, Chapter 3, Sections 2.3.1 - 2.3.3. In addition to the above resources, the specific resources and facilities required for the implementation of the study programme are used.

The programme is implemented using 2 study laboratories with teaching equipment (fire safety laboratory and occupational safety laboratory, which are continuously updated and improved). The occupational safety study laboratories are used for research work on the measurement of the working environment, which is used in practical work and in the writing of Master's theses. The following mobile equipment has been purchased to improve students' practical knowledge and skills:

- 4 in 1 multi-parameter measuring apparatus that measures four parameters - light, noise, temperature and humidity;
- VT-2700 vibration meter;
- RF/EMF Strenght meter 480836, suitable for EMF measurements on mobile phones, mobile base stations and microwave leakage;
- Megger MTF-1835 combination meter for insulation resistance, loop phase and 0 (zero) measurements;
- METER MA2067, a teaching demonstration stand for electrical installations, is unique in that it can be used for laboratory work on protective earth equipment test measurements, earth specific resistance measurements, lightning protection earth equipment test measurements, electrical equipment insulation resistance measurements, measurement of the phase-to-zero total resistance and short-circuit current of loops of electrical equipment in circuit sections and the provision of protection of permissible calculated corresponding electrical circuits with existing fuses or automatic devices, determination of nineteen different types of short-circuit in electrical networks;
- Automatic fire detection, extinguishing and fire alarm training equipment capable of providing training in the construction, operation and design of automatic fire detection, extinguishing and fire alarm systems;
- Impact Pro, a portable gas analyser, can monitor and display up to four gases simultaneously.

This and other equipment allows students to use it outside RTU for their own research, to make indicative measurements of the working environment for their Master's thesis.

The establishment of a training laboratory on the basis of the DCAI Department has enabled a significant modernisation of the training process, as well as the creation of a more efficient system for training students to become modern occupational safety specialists.

Given that this is a professional study programme, its specificity implies the use of various normative acts and standards in the study process. Consequently, a large part of the required and additional literature consists of work on regulations and standards, which are freely available online at [www.likumi.lv](http://www.likumi.lv) and elsewhere. In addition, the RTU Research Library has a wide range of books and other information resources relevant to the study programme "Occupational Safety":

1. Boyle, Tony Health and safety : risk management / Tony Boyle. 4th edition. Abingdon, Oxon ; New York, NY : Routledge, 2018. xii, 518 lpp. : ilustrācijas ; 25 cm ISBN 9781138195240 (brošēts).
2. Civilā aizsardzība : laboratorijas darbi / [sastādīja Vladimirs Jemeljanovs, Jeļena Sulojeva ;

- recenzenti Jānis Ieviņš, Valentīna Urbāne; redaktore Anita Vēciņa ; vāka dizains Jekaterina Ribajeva] ; Rīgas Tehniskā universitāte. Inženierekonomikas un vadības fakultāte. Darbs un civilās aizsardzības institūts. - Rīga : RTU Izdevniecība, 2014 - 21 lpp
3. Darba aizsardzības speciālista rokasgrāmata. 1. grāmata, Darba aizsardzības sistēma, darba vides riska faktori / Jānis Saulītis, Jānis Ieviņš ; Eduarda Groševa zīmējumi, grāmatas un vāka dizains ; redaktors Guntis Kalns. Rīga : Zvaigzne ABC, [2022] 272 lpp. : ilustrācijas, shēmas, tabulas ; 25 cm ISBN 9789934312328 (iesiets)
  4. Darba drošība., Latvijas Brīvo arodbiedrību savienība © Labklājības ministrija, 2010, 280.lpp., Pieejams: [http://stradavesels.lv/Uploads/2014/02/12/Darba\\_drosiba.pdf](http://stradavesels.lv/Uploads/2014/02/12/Darba_drosiba.pdf)
  5. Darba tiesības / Velga Slaidiņa, Ilze Skultāne ; vāka dizains: Aigars Truhins. papildinātais un pārstrādātais izdevums. Rīga : Zvaigzne ABC, [2023] 288 lpp. ; 22 cm ISBN 9789934070228 (iesiets).
  6. Eglīte, Maija, Darba medicīna / Maija Eglīte ; zinātniskā redaktore Janīna Danusēviča ; recenzenti: Mārīte Ārija Baķe, Rudīte Dumbere, Tatjana Farbtuha. Rīga : Rīgas Stradiņa universitāte 1 tiešsaistes resurss (856 lapas) : ilustrācijas, tabulas ; 15,18 MB
  7. Goetsch, David L. Occupational Safety and Health for Technologists, Engineers, and Managers / David L. Goetsch. Eighth, Global edition. New York ; Boston : Pearson, 2015. xxii, 692 lpp. : ilustrācijas ; 29 cm ISBN 9781292061993 (iesiets).
  8. Hughes, P., Ferrett, E. Introduction to health and safety at work: for the NEBOSH national general certificate in occupational health and safety / 6th edition. Abingdon; Oxon; New York, NY: Routledge, xxviii, 2016, 647 p.
  9. Kaļķis, Valdis, Arodveselība un riski darbā / Valdis Kaļķis, Ženija Roja, Henrijs Kaļķis ; [zinātniskie recenzenti: Andris Freivalds, Jānis Zaļkalns, Jānis Dundurs ; literārais redaktors.
  10. Kristapsone, Silvija, Zinātniskā pētniecība studiju procesā / Silvija Kristapsone. , aktualizētais izdevums. Rīga : Biznesa augstskola "Turība", 2014 350 lpp. : il., diagr., tab. ; 20 cm. Uzņēmējdarbības bibliotēka ; 68 . ISBN 9789984828909 (brošēts).
  11. Kusiņš, Juris Civilā aizsardzība : mācību līdzeklis / Juris Kusiņš, Gunta Kļava. [Mārupe] : Drukātava, c2011. 377 lpp. : il., tab., veidlapas ; 21 cm. ISBN 9789984853314
  12. Lan Frasen, Rokasgrāmata Direktīvas 2006/4 par mašīnām piemērošanā ( 2010 ,EK ), pieejama: file:///C:/Users/user/Downloads/guide-appl-2006-42-ec-2nd-201006\_lv%20(1).pdf
  13. Occupational and environmental safety and health / editors: Pedro M. Arezes [un vēl 8 redaktori]. Cham : Springer, 2019. xvi, 805 lpp. : ilustrācijas ; 24 cm. Studies in systems, decision and control ; vol. 202 . ISBN 9783030147297
  14. Roja, Ženija, Cilvēkfaktors un ergonomika darbā : zinātniskā monogrāfija / Ženija Roja un Henrijs Kaļķis ; zinātniskie recenzenti: Andris Freivalds, Jānis Zaļkalns, Jānis Dundurs ; literārā redaktore Sarma Cire ; vāka māksliniece Ieva Parramore. Rīga : Latvijas Ergonomikas biedrība, 2020. 294 lpp. : ilustrācijas, shēmas, tabulas ; 26 cm ISBN 9789934231209 (iesiets).
  15. Urbāne, Valentīna, Bīstamo vielu pielietošanas drošība / Valentīna Urbāne, Skaidrīte Lavendele. izd. Rīga : RTU Izdevniecība, 2008. 199, [1] lpp. ISBN 9789984324821
  16. Valtere, Sarma, Vides vadība un energopārvaldība : zinātniskā monogrāfija / Sarma Valtere, Silvija Nora Kalniņš, Dagnija Blumberga ; recenzenti: Ritvars Sudārs, Māris Kļaviņš ; Rīgas Tehniskā universitāte. Vides aizsardzības un siltuma sistēmu institūts. Rīga : RTU Izdevniecība, c2014. 288 lpp. : il., diagr., tab. ; 24 cm. ISBN 9789934105661

Students also have access to the DCAI Methodology Room, where they can consult statistical materials, books, conference materials, course guides, etc. Investments have been made in developing and improving information technology facilities. Each teaching member of staff has a workstation equipped with a computer connected to the internet, and laptops are provided as required. Classroom equipment is also constantly being improved. For example, in 2022, Room 09

was equipped with a Samsung Flip 3 Display WM85A interactive whiteboard with touchscreen display, which allows up to 4 people to write and draw at the same time. Students' answers to questionnaires also show that classrooms are adequately equipped.

Overall, the resources and facilities of the study programme are adequate to meet its needs. The continuous improvement and equipping of teaching laboratories is a positive development.

**3.3.2. Assessment of the study provision and scientific base support, including the resources provided within the framework of cooperation with other science institutes and higher education institutions (applicable to doctoral study programmes) (if applicable).**

**3.3.3. Indicate data on the available funding for the corresponding study programme, its funding sources and their use for the development of the study programme. Provide information on the costs per one student within this study programme, indicating the items included in the cost calculation and the percentage distribution of funding between the specified items. The minimum number of students in the study programme in order to ensure the profitability of the study programme (indicating separately the information on each language, type and form of the study programme implementation).**

Information on the principles and methodology for allocating the funds is provided in section 2.3.1 of the report.

Information on the breakdown of funding between cost items is provided in the Annex "Breakdown of funding between cost items" of the Self-Assessment Report. Information on the cost per student is given in the Annex "Funding by Positions by the period from 2013-2022". Information on the minimum number of students required for the study program is given in the Annex to the Self-Assessment Report "On minimal number of students in study programmes".

The Professional Master's degree programme "Occupational Safety" is a fee-paying programme only. The programme is funded by individuals' tuition fees. Students may use study and student loans in accordance with the procedure established by the Cabinet of Ministers.

The tuition fee for individuals in the Professional Master's study programme part-time studies from the academic year 2014/2015 to the academic year 2018/2019 was EUR 1650, and from the academic year 2019/2020 and until now it is EUR 1750. During the reporting period, students did not apply for full-time studies, so the study fee has not been determined.

It can be concluded that the level of tuition fee funding tends to decrease during the reporting period, which can be explained by the economic and demographic situation in the country. The cost per student has increased during the reporting period, which is explained by the improvement of infrastructure, as well as the overall increase of RTU costs due to objective reasons (utilities, building maintenance, etc.).

The available funding is used for the implementation of the study programme and for its development. Every year, funds are allocated for the purchase of literature in the library, the development and maintenance of information systems related to the study process, the

improvement of the study material and technical base (see Section 3.3.1), and the involvement of highly qualified specialists as guest lecturers in the study process. During the emergency, the learning process was delivered remotely, mainly using MS Teams, Zoom, WebEx platforms. RTU provided all teaching staff with the possibility to use them by purchasing full licence packages.

The percentage distribution of funding between the identified cost items is in line with the requirements for the implementation of the study programme. Taking into account the fact that the study process is dynamic, the mechanism of the RTU financial management system gives the possibility, according to the real situation, to change its distribution among the cost items within the limits of the study programme funding in accordance with the legislation of the Republic of Latvia and the procedure established by RTU.

The Professional Master's degree programme "Occupational Safety" is taught in the national (Latvian) language and it is part-time studies.

For full-time and part-time studies local students studying in the national (Latvian) language, including Master's level studies (including professional study programmes), to ensure **the cost-effectiveness of the study programme, the minimum number of students in the programme** is 15.

The number of students **fully ensures the cost-effectiveness of the study programme**, taking into account the minimum cost-effective number of students in the study programme - 15 students and the average number of students per academic year in the reporting period - 38 students.

## 3.4. Teaching Staff

**3.4.1. 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.**

In order to ensure the quality of the study programme content and the graduates' competitiveness in the labour market, the teaching staff involved in the implementation of the programme regularly improve their professional and academic knowledge at various seminars, national and international conferences, scientific and research work (see Appendix Science\_Achievements of Staff), and by engaging in various projects and contractual works. Information on the lecturers involved in the study programme and their relevance to the courses taught is presented in the Annex "Basic information on the lecturers involved in the implementation of the study field".

During the reporting period, the elected academic staff involved in the implementation of the study programme participated in a total of several academic conferences and seminars. They have also participated in 59 scientific conferences and made presentations at 87 international scientific conferences. They have published 275 articles in international scientific journals and conference proceedings, and have been on 33 mobility trips. A total of 3300 academic hours spent in

professional development and training seminars (including hospitality) and supervised 182 final theses.

The selection of teaching staff is related to their scientific and pedagogical work experience, areas of scientific research and achieved results, taking into account the specifics of the study programme and study courses.

**Professor Jānis Ieviņš**, Director of the Institute and the Study Programme, holds a PhD in economics. He carries out scientific research, participates in international conferences, seminars and courses. He is the author of numerous publications on the following topics: factors affecting the quality of the working environment, modern trends in disaster management, occupational health and safety issues, innovations in construction waste management, etc. As an expert of the Latvian Council of Science, he works in the field of Life Sciences - Earth Sciences, Physical Geography and Environmental Sciences. Jānis Ieviņš is a member of the Commission of the Employers' Confederation of Latvia. Has supervised 4 doctoral theses. During the reporting period, he worked on international projects and national research projects, both as a manager and as an executor. He is a member of the RTU Senate, the Academic Assembly and the Council of Professors of Environmental Science. Continuously improves his knowledge through various training courses and seminars. The acquired knowledge is useful in the development and management of the courses "Basics of Labour Protection", "Fundamentals of the Activities of Technogenic Environment Safety Organisations", "Working Environment Risk Prevention Methods" and others.

**Professor Vladimirs Jemeljanovs** holds a PhD in engineering. He is the author of numerous scientific publications on occupational safety, risk management and fire safety. He is an expert in the Latvian Association of Power and Energy Engineers. During the reporting period, he worked on 6 international projects and 5 national research projects, both as a manager and as an executor. He is active in various organisations and commissions. Examples include the Latvian Firefighting Association, the Latvian Association of Electrical and Energy Engineers, the Latvian Association of Civil Engineers, LATAK (Latvian National Accreditation Bureau), the International Academy of Ecology and Life Protection Sciences, etc. Vladimirs Jemeljanovs is a member of the RTU Constituent Assembly. Has supervised 4 doctoral theses. Regularly participates in international and national methodological conferences, learning different teaching methods and their suitability for different study needs.

**Docent Mihails Urbans** holds a Master's degree in Occupational Safety and a PhD in Management Science. The title of the doctoral thesis is "Methodology for assessing economic and environmental losses at hazardous sites". He carries out scientific research, participates in international conferences, seminars and courses. He has participated in the international project "Development of a common environmental risk management plan for the cities of Jelgava and Šiauliai". As part of this project, a technogenic risk assessment was carried out. The results of the research contribute to the development and management of the study courses "Evaluation and Reduction of Industrial Emergency Risks", "Object Risk Assessment" and "Management and Simulation of Emergency Situations" and others.

**Lecturer Inese Vilcāne** has a Master's degree in occupational health and safety and is currently pursuing her PhD studies. She works as a sector expert in occupational safety and health at the National Content and Education Centre and as a sector expert in occupational safety and health at the State Education Quality Service, is a board member of the Latvian Association of Occupational Safety Specialists and a member of the Latvian Ergonomics Society. During the reporting period, she participated in several scientific conferences and published several articles in international scientific journals and conference proceedings (including WoS and Scopus). The professional knowledge accumulated during many years of work experience is useful in the development and

publication of scientific articles, as well as in the development and supervision of final theses in the study courses “Working Environment Risk Prevention Methods” and “Labour Protection and Safety”.

**Docent (Practical) Jānis Bērziņš** holds a Master's degree in Engineering. He has been Director of the State Labour Inspectorate for more than 10 years, Head of the Labour Technical Inspectorate of the Industrial Complex in the Main Technical Supervision Administration, Labour Technical Inspector and Head of the Labour Protection Department in the Latvian Republican Council of Trade Unions. For more than 18 years he has been a member of the Board of the Latvian Association of Occupational Safety Specialists. He has worked as an expert at the Centre for Quality Assessment in Higher Education. In his 17 years of teaching experience, he has developed and supervised more than 10 study courses, as well as dozens of final theses. He has participated in several academic and scientific conferences, presented papers and published several scientific articles.

**Associate Professor Valentīna Urbāne** is a lecturer with more than 35 years of teaching experience. Participation in scientific conferences and publications helps to keep the study content up-to-date and to keep abreast of the latest trends in the development of occupational health and safety systems in various industrial sectors. The PhD in Chemistry provides expertise in the development and management of courses such as “Occupational Safety and Environmental Protection”, “Basic of Occupational Safety”, “Industrial Waste Management”, “Safe Working Practice with Dangerous Substances” and others. Her expertise helps students to navigate occupational health and safety guidelines when working with hazardous substances, carry out risk assessments and work with risk assessment methods, and predict the potential hazard of a new substance.

The staff involved in the study programme actively benefit from international cooperation and mobility programmes, including the Erasmus+ programme (see part II Annex “Izejošā mobilitāte Erasmus mācībspēki/Outgoing mobility Erasmus Staff” and Annex “Izejošā mobilitāte mācībspēki CITS/Outgoing mobility Staff OTHER”). The latest knowledge and practical experience gained through international cooperation and mobility are used to update and improve the study courses taught by the teaching staff and to better achieve the goals and objectives of the study programme.

The involvement of the study programme staff in various projects and other forms of cooperation with foreign partners and educational institutions (see Appendix “Biographies of the teaching staff”) allows the study programme to attract both foreign guest lecturers and to conduct practical international intensive training programmes for students, in which representatives and experts from other countries also participate and share their practical experience and knowledge. This type of cooperation also promotes the mobility of students and the opportunity to learn new skills through exchange programmes or internships abroad. During mobility, teaching staff are often introduced to new teaching methods and techniques, which they then integrate into their studies. Students integrate the knowledge they gain from these exchanges and training sessions into their own research papers and present them at conferences. This allows students to develop research skills and competences.

Since the programme's teaching staff members have extensive practical experience and work as experts not only in the Latvian Academy of Sciences, but also in various organisations representing the field, they are called upon as competent contractors in various contract works related to the field, if necessary. The teaching staff members integrate the knowledge gained in these contract projects into scientific articles, which students can then use as sources of information on current developments in the field. The activities of teaching staff as experts are also reflected in the work of the various working groups that develop relevant legislation and standards. This allows the teaching staff to provide up-to-date and high-quality information on the normative basis on which



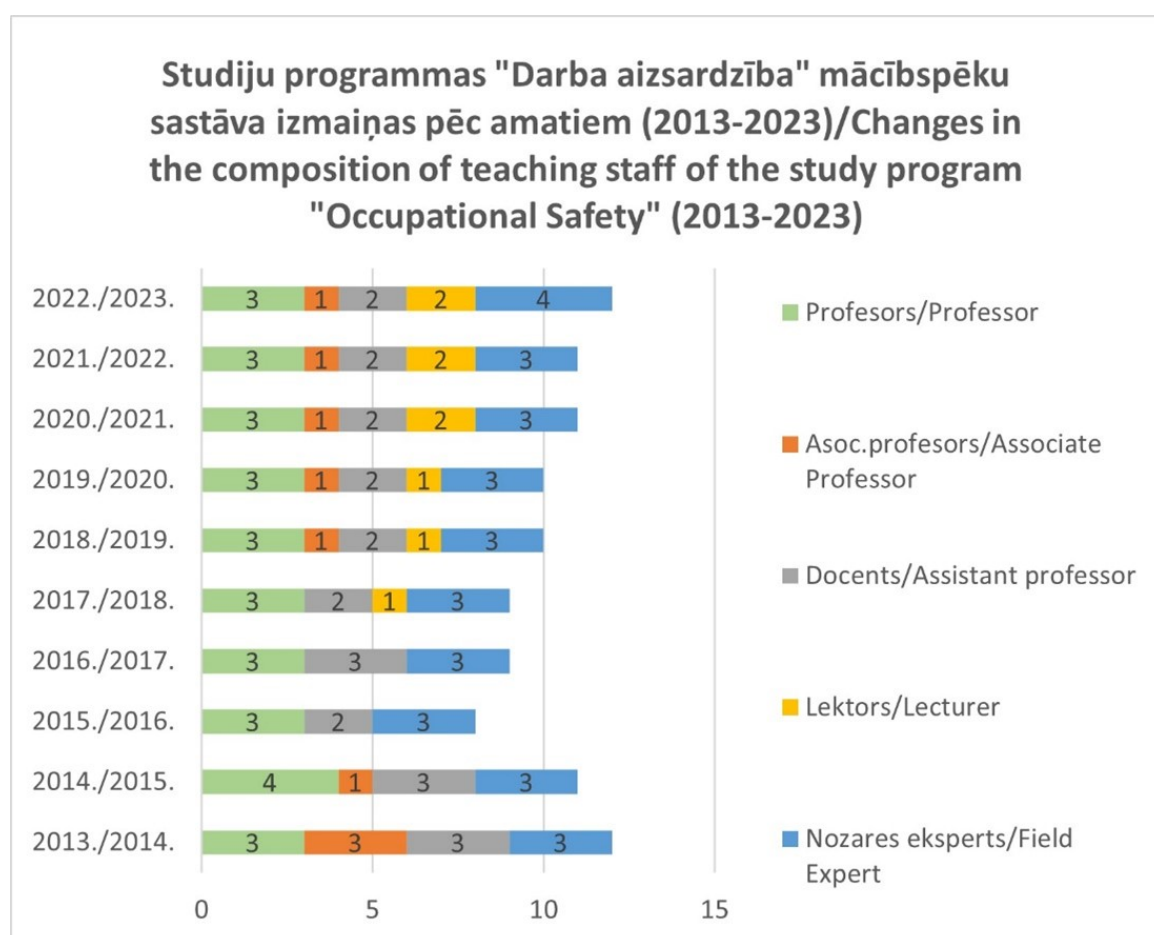
students will have to base their professional activities in the future.

In general, it can be concluded that the competence, knowledge and practical work experience of the teaching staff involved in the implementation of the study programme allow to achieve the objectives of the study programme, to successfully implement the tasks to be performed and to ensure the successful achievement of the achievable results set for the programme.

### 3.4.2. 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 programme is delivered by both academics and highly qualified industry experts. Student surveys show that they value the involvement of experts in the field. Information on the teaching staff is presented in the 2.3. part annex "Basic information on the teaching staff involved in the implementation of the field of study".

The figure below shows the changes in the elected teaching staff members involved in the implementation of the study programme by position.



It can be seen that the number of professors has remained constant - since the academic year 2013/2014 there have been three professors (except for the academic year 2014/2015, when there were four), but the number of associate professors has decreased - in the academic year 2013/2014 there were three, but in the academic year 2014/2015 there was only one. Thereafter, there are no associate professors in the programme for the next three years, and from the 2018/2019 academic year there is again only one associate professor for all subsequent years. The number of docents is

mostly unchanged - two (except for the academic years 2013/2014, 2014/2015 and 2016/2017, when there were three docents). In the period from 2013/2014 to 2017/2018, no lecturer was involved in the implementation of the study programme, but from 2017/2018 to 2020/2021 there was one, and in the last two academic years - already two. It should also be noted that since the 2013/2014 study year, the study programme has had three industry experts from the Latvian Council of Science. Changes in academic staff are mainly due to changes in the content of the study programme to improve it and changes in the composition of the academic staff involved. Changes in the composition of the teaching staff were also partly due to the fact that in some cases teaching staff members terminated their employment or due to the death of a teaching staff member. This has necessitated changes in the composition of the teaching staff, but the changes made still ensure that the programme is delivered by a diverse range of academics and that students receive a wide range of information about the situation in the sector, both from a theoretical and a practical perspective. The process of changing the composition of the teaching staff also considers the generational change of academic staff, trying to attract the most promising people for academic work from the graduates of the study programme. For example, Mihails Urbans, a graduate of the programme, went on to study for a PhD after graduating from the Occupational Safety programme and obtaining a Professional Master's degree, successfully defended his doctoral thesis and has now joined the faculty of the Institute of Occupational Safety and Civil Protection as a researcher and lecturer in the course "Facility Risk Assessment and Disaster Modelling and Management" and "Facility Risk Assessment and Disaster Modelling" (study project) (both study courses are in the study programme "Fire Safety and Civil Defence") and "Safety and Risk Assessment of Technological Processes" (study programme "Safety Engineering"). Lecturer Inese Vilcāne, after graduating from this study programme and obtaining a Professional Master's degree, continues her doctoral studies at RTU and at Tallinn University of Technology (Estonia) and teaches study courses "Labour protection and safety" (study programme "Occupational Safety") and "Working Environment Risk Prevention Methods" (study programme "Safety Engineering"). Lecturer Guna Bazone has also graduated from the study programme "Occupational Safety" and is currently continuing her doctoral studies at RTU, as well as lecturing in the study course "Industrial Waste Management" (study programme "Safety Engineering") and "Basics of Labour Protection" (for other RTU study programmes that are not part of the study programmes implemented by the Institute of Occupational Safety and Civil Protection). Lecturer Matīss Šmitiņš after graduation from the professional bachelor study programme "Safety Engineering" continued his studies in the study programme "Occupational Safety", obtained a Professional Master's degree and now continues his studies in the RTU doctoral programme and lectures in the study course "Basics of Labour protection" and "Civil Defence" (for other RTU study programmes which are not part of the study programmes implemented by the Institute of Occupational Safety and Civil Protection). Lecturer Jānis Bartušauskis also graduated from the study programme "Occupational Safety", enrolled in the RTU doctoral programme and teaches the study courses "Environmental Protection" (study programme "Occupational Safety") and "Basics of Labour protection" and "Civil Defence" in English (for other RTU study programmes not included in the study programmes of the Institute of Occupational Safety and Civil Protection).

The figure shows that, in line with the suggestions made in the students' questionnaires and the fact that this is a Professional Master's study programme, highly qualified academic staff, industry specialists and experts are involved in the teaching process, thus bringing the programme content as close as possible to the specifics and topicalities of the industry. In general, the qualifications of the teaching staff involved in the implementation of the study programme meet the conditions for the implementation of the study programme and the requirements of the regulatory enactments.

**3.4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of 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 or peer-reviewed monographs may be additionally specified. Information on the teaching staff included in the database of experts of the Latvian Council of Science in the relevant field of science (total number, name of the lecturer, field of science in which the teaching staff has the status of an expert and expiration date of the Latvian Council of Science expert) (if applicable).**

**3.4.4. 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).**

**3.4.5. 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 programme and 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).**

Cooperation between teaching staff within the study programme takes place both during the semester when teaching study courses and when planning and developing changes and developments necessary to update the study programme. To ensure the interconnectedness of the course content, the programme conducts an annual course audit, as well as various seminars where the programme staff familiarise themselves with the course topics, and teaching methods and discuss improvements. Daily communication in the teaching environment is both formal (weekly meetings of the Institute, weekly operational meetings of the Faculty, etc.) and informal (individual face-to-face meetings, telephone communication, etc.). Courses are regularly updated and improved based on both student suggestions and industry trends. For example, as a result of the cooperation between the faculty and the study programme director, a new study course "Occupational Health and Ergonomics" 5CP was developed and included in the programme in 2022, which allowed for reduction the fragmentation of study courses and to close two study courses with a low number of credits, by reviewing and updating the study programme content and structure.

On the other hand, professor J. Ieviņš, associated professor V. Urbāne, docent J. Bērziņš and lecturer J. Bartušauskis jointly developed "Methodological Instructions on the Organisation, Implementation and Defence of Internship in the Master's Professional Study Programme "Occupational Safety"" and "Methodological Instructions on the Organisation, Implementation and Defence of Internship in the Master's Professional Study Programme for Students with Prior Higher

Academic Education". Throughout the semester, when implementing study courses, meetings and methodological sessions of the teaching staff are held to discuss the topics of study courses and necessary improvements in the study content in order to agree on topics, directions, responsibilities and compliance with regulatory requirements. All teaching staff members involved in the course of study are involved in the process of coordinating the courses of study to ensure that the topics covered in the programme of study do not overlap and are continuously improved and updated in collaboration with the professionals involved in the field. For example, the Programme Director J. Ieviņš and the practical docent J. Bērziņš, in cooperation with industry professionals, developed and updated the occupational standard. In the compulsory and restricted elective part, study courses are divided into thematic blocks, which are coordinated so that they do not overlap. The mechanisms for collaboration vary between the teaching staff - meetings, individual face-to-face meetings, remote meetings or a combined version where some meet in person and some join interactively via Zoom or MS Teams. This ensures that issues related to the study process and its improvement are discussed promptly, the topics taught in the study courses are in line with the programme objectives and the learning outcomes of the study courses are integrated into the overall learning outcomes of the programme, taking into account different work schedules and workloads. The participation of the Study Programme Director in weekly departmental meetings allows to receive up-to-date information and to maintain the compliance of the study programme content and achievable results with the strategic goals of the faculty and RTU. Cooperation between teaching staff takes place both within a given course of study, through collaboration between the responsible teaching staff and industry professionals, and between courses of study with related themes requiring the study of similar topics, at different levels of understanding, as well as in the process of developing final theses.

An analysis of the student-teaching staff ratio within the programme shows that in the 2022/2023 academic year the ratio is approximately 1:3, while the ratio of professionals to students is approximately 1:6.

# Annexes

III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme	Occupational Safety_ENG_diploma and diploma supplement.pdf	Darba aizsardzība_LV_diploms ar pielikumu.pdf
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (table) (if applicable)		
Statistics on the students in the reporting period	5.pielikums_Annex 5_Statistikas dati par studējošajiem_statistical data on students.pdf	5.pielikums_Annex 5_Statistikas dati par studējošajiem_statistical data on students.pdf
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard	6.pielikums_Annex 6_atbilstība valsts izglītības standartam_compliance with the national education standard_DA_OS.pdf	6.pielikums_Annex 6_atbilstība valsts izglītības standartam_compliance with the national education standard_DA_OS.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (if applicable)	7.pielikums_Annex 7_Atļautība profesijas standartam_Compliance with professional standard.pdf	7.pielikums_Annex 7_Atļautība profesijas standartam_Compliance with professional standard.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	Specifiskais normatīvais regulējums_Specific Regulatory Framework_DA_OS.pdf	Specifiskais normatīvais regulējums_Specific Regulatory Framework_DA_OS.pdf
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	8. pielikums_Annex 8_Kartējums_Mapping_DA_OS.pdf	8. pielikums_Annex 8_Kartējums_Mapping_DA_OS.pdf
The curriculum of the study programme (for each type and form of the implementation of the study programme)	9.pielikums_Annex 9_Kursu plānojums_Course plan_DA_OS.pdf	9.pielikums_Annex 9_Kursu plānojums_Course plan_DA_OS.pdf
Descriptions of the study courses/ modules	Annex 10_Study courses_Occupational safety.pdf	Annex 10_Study courses_Occupational safety.pdf
Description of the organisation of the internship of the students (if applicable)	Internship_Management_Procedure.pdf	Prakses_organizēšanas_kartība.pdf
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		
Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		

# Administration of Customs and Taxes (42861)

Study field	<i>Internal Security and Civil Protection</i>
ProcedureStudyProgram.Name	<i>Administration of Customs and Taxes</i>
Education classification code	<i>42861</i>
Type of the study programme	<i>Professional bachelor study programme</i>
Name of the study programme director	<i>Normunds</i>
Surname of the study programme director	<i>Rudzītis</i>
E-mail of the study programme director	<i>Normunds.Rudzitis@rtu.lv</i>
Title of the study programme director	<i>Mg.oec.</i>
Phone of the study programme director	<i>67089328</i>
Goal of the study programme	<i>The aim of the Professional Bachelor's study programme "Administration of Customs and Taxes" is to provide a set of theoretical knowledge and practical skills to provide professional competence appropriate to the level of professional bachelor education and one of the two professional standards (two specialisations are included in the programme), which allows to occupy appropriate positions of the functional manager of customs administration authorities or tax economist and provides opportunities for further studies.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li>- to provide students with a broad, professional, practice-oriented education that enables them to adapt easily to the labour market and to carry out scientific research;</li> <li>- to provide students with theoretical and practical training appropriate to the fifth level of professional qualification, enabling them to obtain the qualification of tax economist or functional manager of customs administration, as well as to continue their education at Master's level;</li> <li>- to enable students to obtain qualifications closely related to their future work, to provide theoretical knowledge and skills that will enable graduates to enter the practical workforce, as tax economist or as functional manager of customs administration, after completing the programme;</li> <li>- to ensure the acquisition of modern general knowledge, to develop economic thinking, to promote students' analytical abilities, to develop skills in solving professional problems and tasks, in developing projects that will enable graduates to engage in solving problems of economic activity;</li> <li>- to develop the ability to work in teams and with professionals from different backgrounds, and provide opportunities to develop foreign language skills that will enable them to work with colleagues in other countries.</li> </ul>

Results of the study programme	<p>- is able to summarise and analyse economic patterns and understand their impact on customs and tax administration processes and explain the results;</p> <p>- is able to interpret and apply national and international legislation on tax and customs matters, prepare proposals for draft legislation, develop methodological materials and other documents related to customs and tax administration;</p> <p>- is able to interpret and apply administrative legislation, qualify administrative offences, draw up and evaluate documents relating to administrative proceedings;</p> <p>- is proficient in the use of information and communication technologies, is able to carry out scientific research, create innovation, build social dialogue in society, continue to learn and educate in the professional field, act ethically and responsibly so as not to harm society and the environment;</p> <p>- is able to plan, manage and coordinate the work of the functional structural units of the customs and tax administration, analyze and evaluate the performance and quality indicators.</p> <p>1) Sub-programme "Administration of taxes":</p> <p>- is able to analyse tax payment flows, forecast tax revenue to the state budget, analyse factors affecting tax debt;</p> <p>- is able to organise the taxpayer's accounts, choose tax regimes, prepare tax returns, keep records of goods, services or transactions, register, calculate costs and prices;</p> <p>- is able to manage tax risks and implement measures to mitigate tax risks, carry out tax control activities, analyse the results of tax control work and their effectiveness;</p> <p>- is able to provide customer service, identify taxpayers' education and advice needs and advise on the application of tax, duties and other compulsory payments specified in the laws and regulations.</p> <p>2) Sub-programme "Administration of customs":</p> <p>- is able to organise customs clearance processes, is familiar with the regulations and requirements for the application of the goods tariff and other customs clearance issues, and is able to provide advice on customs and related matters;</p> <p>- is able to implement customs risk management, organise and manage customs control activities, including the control of restricted and prohibited goods and ensure the effective use of customs technical equipment;</p> <p>- understands the roles and responsibilities of the national border control services involved in border crossing, and is able to develop and maintain border crossing operational technology and related documentation;</p> <p>- has knowledge of international transport and trade law, as well as business, including basic principles of logistics and supply chain security.</p>
Final examination upon the completion of the study programme	Bachelor Thesis

# 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)	160
Admission requirements (in English)	<i>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 Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Tax Economist</i>

## Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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>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 Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Tax Economist</i>

## Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

## 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)	160
Admission requirements (in English)	<i>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 Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Functional Manager in Customs Administration</i>

## Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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>Secondary education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Tax Economist</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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>Secondary education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Bachelor's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Functional Manager in Customs Administration</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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>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 Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Functional Manager in Customs Administration</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050



## 3.1. Indicators Describing the Study Programme

**3.1.1. Description and analysis of changes in the parameters of the study programme made since the issuance of the previous accreditation form of the study field or issuance of the study programme license, if the study programme is not included on the accreditation form of the study field, including changes planned within the evaluation procedure of the study field evaluation procedure.**

The Professional Bachelor study programme "Administration of Customs and Taxes" was approved on 15 December 2003 (RTU Senate meeting, Protocol No 482), internationally accredited by the World Customs Organisation in 2010 and received a certificate that the programme meets the international standards of the customs profession.

The first national accreditation of the programme took place on 5 June 2013 for a period of six years. According to the Law of 24 April 2020 "Amendments to the Law on Higher Education Institutions", the accreditation period for the study field "Internal Security and Civil Defense" was extended until 30 June 2024.

In 2021, the study programme "Administration of Customs and Taxes" has been awarded a Certificate of Recognition by the European Commission for compliance of the academic study programme with the European Union (EU) Customs Competence Framework. The EU Customs Competence Framework aims to harmonise and raise customs enforcement standards across the EU. It has been developed in cooperation with public and private experts from EU countries, based on World Customs Organisation (WCO) and other international recommendations. The Customs Competency Framework is based on three pillars - skills, attitudes and knowledge - which are considered essential for professionals working in public customs organisations and private companies with customs-related activities.

The programme is supplemented and updated based on labour market research and consultations with employers and practitioners. Advice from alumni, students and faculty members, as well as from international organisations and experts, also plays an important role in improving the study process.. In order to ensure the training of educated, competitive and professional specialists in the period from 2013-2023, the programme has undergone changes related to the development of study plans and content. Every year, the study course curricula, as well as the regulations for internships and final theses, are reviewed and updated to ensure that their content is up-to-date, in line with the objectives of the programme and current developments in the field, and that the intended study outcomes are achieved.

In cooperation with the World Customs Organisation (WCO), the need to clarify the occupational standard for customs officers arose in the light of its occupational standards and the occupational designations used in the EU Competency Framework. Significant changes have been made to the qualification in Customs field to meet the new standard. Instead of the existing professional qualification "Head of Customs Office Structural Unit" (PS 0279), a new professional standard **"Functional manager of customs administration"** (PS 238) was developed and agreed at the meeting of the Tripartite Cooperation Sub-Council for Professional Education and Employment on 14 December 2022 (Protocol No 7). Available only Latvian at: [Professional Standard](#)

The programme was also improved in the field of taxation for the professional qualification **"Tax Economist"** (agreed at the meeting of the Tripartite Cooperation Sub-Council for Professional

Education and Employment of 18 September 2019, Protocol No 6. Available only Latvian at: [Professional Standard](#)

As a result, new study courses have been developed in line with the new and improved professional standards, and courses have been merged to increase the number of credits per course, which is expected to continue in the future.

The long-term plans of the Tax and Customs Union Directorate (TAXUD) of the European Commission (EC) envisage the partial centralization of customs functions at the EU level, as well as a systemic approach to the automation of the performed functions and the development of a uniform approach. Since there is no specialized educational program in customs administration in Lithuania, while in Estonia such a educational program is implemented in a consolidated version with police study programs, it is necessary to create a study program in the field of customs and tax administration in English with the aim of preparing competent customs and tax specialists for work in the Baltic region, as also in other EU member states.

According to the decision of the meeting of the Study Accreditation Commission of the Ministry of Education and Science of August 25, 2016 23-A professional bachelor's study program "Administration of Customs and Taxes" was accredited for the implementation of the study program in both Latvian and English.

**3.1.2. Analysis and assessment of the study programme compliance with the study field. Analysis of the interrelation between the code of the study programme, the degree, professional qualification/professional qualification requirements or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements. Description of the duration and scope of the implementation of the study programme (including different options of the study programme implementation) and evaluation of its usefulness.**

The study programme "Administration of Customs and Taxes" is directly related to the aim, objectives and nature of the field of study, as one of the aims of the field of study is to provide sustainable multi-level education in the areas of public security such as national border security, economic security and security of economic subjects, providing a body of knowledge for persons involved in customs and tax administration and thus fully corresponding to the field of study "Internal Security and Civil Defense".

The **aim** of the study programme is to provide a set of theoretical knowledge and practical skills to provide professional competence appropriate to the level of professional bachelor education and one of the two professional standards (two sub-programmes are included in the programme), which allows to occupy appropriate positions of the functional manager of customs administration or tax economist and provides opportunities for further studies. The studies lead to a Professional Bachelor's degree in customs and tax administration and 6th level professional qualification "**Functional manager of customs administration**" or "**Tax Economist**".

The **tasks** of the study programme are defined in order to achieve the aim of the study programme and to prepare specialists with the competences, knowledge, skills and attitudes defined in the professional standards.

According to the professional standard and the 6th Level professional qualification, as a result of the study, students are provided with theoretical and practical preparation, competence to be able

to summarize and analyze economic patterns and to understand their impact on customs and tax administration processes and to explain the obtained results, to be able to interpret and apply national and international legislation in tax and customs matters, be able to prepare proposals for legislative drafts, develop methodological materials and other documents related to customs and tax administration, be able to interpret and apply administrative and criminal legislation, qualify administrative offences, draw up and evaluate documents related to administrative proceedings, is proficient in the use of information and communication technologies, be able to carry out scientific research, create innovations, create social dialogue in society, continue learning and education in the professional field, act ethically and responsibly so as not to harm society and the environment, be able to plan, manage and coordinate the work of the functional structural units of the customs and tax administration, analyze and evaluate the effective and qualitative indicators of the operation.

Students of the sub-programme "**Administration of Taxes**" acquire competences to analyse tax payment flows, forecast tax revenue to the state budget, analyse factors affecting tax debt, to organise the taxpayer's accounts, choose tax regimes, prepare tax returns, keep records of goods, services or transactions, register, calculate costs and prices, to manage tax risks and implement measures to mitigate tax risks, carry out tax control activities, analyse the results of tax control work and their effectiveness, to provide customer service, identify taxpayers' education and advice needs and advise on the application of tax, duties and other compulsory payments specified in the laws and regulations.

Students of the "**Administration of Customs**" sub-programme acquire competences to organise customs clearance processes, are familiar with the regulations and requirements for the application of the goods tariff and other customs clearance issues, are able to provide advice on customs and related matters, are able to implement customs risk management, organise and manage customs control activities, including the control of restricted and prohibited goods and ensure the effective use of customs technical equipment, are able to understand the roles and responsibilities of the national border control services involved in border crossing, are able to develop and maintain border crossing operational technology and related documentation and have knowledge of international transport and trade law, as well as business, including basic principles of logistics and supply chain security.

The aim of both sub-programmes describes the relevance of the field to the economy and society. Internal security, border security, payment administration, the fight against illegality, are equally important in customs and taxation. This is also taken into account in the design of the study programme, respecting the specificities and priorities of both sub-programmes in line with the professional standards. Students of both sub-programmes study courses relevant to the sector, such as "Customs Processes and Procedures", "Administration of Customs Fees", "Customs Tariff System", Taxes and Duties". In order to acquire the necessary competences for qualification in the field of taxation, students of this specialisation study courses such as "Tax Control and Risks", "Tax Payers Services", "Tax Information Systems" etc. Whereas, in the Administration of Customs specialisation, students study important courses such as "Customs Information System", "Customs Audit", "Control of Restricted and Prohibited Goods", "Customs Control Technology and Devices", "Border Security and Supply Chains", "Customs Risk Management" etc. Customized Practical Placement programmes are being developed in both sub-programmes.

The Professional Bachelor study programme "Administration of Customs and Taxes" is recognised and highly valued by both the World Customs Organisation and the European Commission, prepares professionals for both public administration and the private sector, and graduates demonstrate the ability to apply their skills and knowledge at the highest level. Thus, it should be noted that **there is virtually no equivalent professional bachelor study programme in the field of customs**

## **education in Latvia and the region.**

The programme also contributes directly to the achievement of the specific objectives of the strategy for the development of the field of study, as it participates in the implementation of the national security policy by training professional specialists in the fields of border security and economic security, taking into account Latvia's international and regional commitments. The implementation of this programme, in line with the European Union's Internal Security Guidelines, helps to proactively address threats that have a direct impact on citizens' lives, security and well-being, including natural and man-made disasters and various geopolitical events.

The study programme is designed in cooperation with representatives of the tax and customs authorities of the State Revenue Service (SRS), as well as representatives of business, so that students acquire comprehensive knowledge of the activities of these authorities, as well as skills and abilities relevant to the aims and objectives of the programme, and are able to apply them in practice.

The study programme and study courses are updated on a regular basis, in accordance with the recommendations of the expert commission (after the previous accreditation), development trends in the field of study, as well as changes in regulatory enactments. To this end, the content of study courses is regularly evaluated, and topics are merged, supplemented and updated.

The specialists trained under the programme provide significant support to the activities of the SRS Customs Service in the fight against smuggled goods and protection of the internal market, detection of movement of prohibited and restricted goods, collection of customs duties, detection and prevention of counterfeit goods, protection of consumer rights, prevention of competition and corruption risks, protection of free movement of goods and fair trade, implementation of tax administration competences.

Through this programme, the business community has the opportunity to learn the basics of customs and tax administration, to design their business activities in customs and tax areas in accordance with the requirements of regulatory enactments, to benefit from incentives and to optimise their business activities.

The study programme is implemented in 6 different variants, of which 4 variants are implemented in Latvian, while 2 variants of the study programme are planned to be implemented in English. In Latvian, training is carried out full-time on-site and part-time off-site for qualification in the study sub-programmes "Administration of Taxes" and "Administration of Customs". The implementation of all the mentioned options is justified, because in this way the acquisition of the necessary competencies is ensured both after secondary education and for working professionals, developing the necessary skills and knowledge as well as in the field of customs, full-scale bachelor's studies are not available in the Baltics and Scandinavia, while in the field of tax administration, there is a lack of qualified specialists in most countries, including EU member states, as well as they are in demand in various business segments.

The study programme corresponds to the study program code 861 09 "Administration of Customs and Taxes"

The Professional Bachelor study programme "Administration of Customs and Taxes" complies with the Cabinet of Ministers Regulation No 305 of 16 June 2023 "Regulations on the state standard of professional higher education". Available only in Latvian at: [likums.lv](https://likums.lv)

Studies at Professional Bachelor study programme "Administration of Customs and Taxes" requires secondary or professional secondary education. Admission to full-time (day studies) undergraduate programmes for state-funded places is competitive, based on the results of centralised

examinations (CE). For applicants to the Faculty of Engineering and Management: two CEs in the following subjects: mathematics, physics, a foreign language (English, German or French), Latvian language. Available: [Admission Rules](#)

When enrolling in this study programme students with previous first level professional higher education in the field of customs and tax administration, the study courses acquired in the first level studies are mutually coordinated, equated and transferred on the basis of Clause III.16 of the Cabinet of Ministers Regulation No 305 of 16 June 2023 "Regulations on the state standard of professional higher education" Part V. Paragraph 27 and decisions of the RTU Senate and orders of the Rector.

Graduates of the Professional Bachelor study programme have the right to continue their studies in the Professional Master study programme "Administration of Customs and Taxes" or in any other RTU Faculty of Engineering Economics and Management (FEEM) Master study programme, as well as in Master level study programmes of other higher education institutions.

Scope of the programme is 160 CP (240 ECTS). Study duration is 4 years full-time in-presence studies and 5 years part-time extramural studies. Studies are organised in accordance with the decisions of the RTU Senate and the orders of the administration, and studies are planned in two semesters per year, each semester lasting 20 weeks. Studies are implemented in Latvian and English.

The qualification "Tax economist" obtained as a result of studies corresponds to the "Tax economist" branch card of Business, finance, accounting, administration (wholesale, retail and commercial studies), while the qualification "Functional manager of customs administration" is not included in any of the branch cards, because the management of customs affairs is a specific field, the administration of which is carried out uniformly in the European Union managed by EC TAXUD, and at the national level by the Ministry of Finance.

### **3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.**

The uniqueness of the study programme "Administration of Customs and Taxes" is confirmed by the high competitiveness of the programme's graduates, the high competition for budget places each year (more than 300 applicants for 20 budget places), the undeniable results of student and graduate surveys and feedback from employers. The high number of applications is due to the quality of the study programme, the close links with employers, the high demand for specialists, the international recognition, as well as the work done to promote the programmes of the Department of Customs and Taxes.

There is a high demand for customs and tax professionals in Latvia. In the State Revenue Service alone, more than 300 new employees are needed every year, taking into account staff turnover. RTU cannot meet this demand, so only a few dozen young specialists are recruited by the SRS each year, which on average accounts for 20-25% of the total number of graduates each year. Students in the 3rd year have the opportunity to undertake internships both in public institutions and in the private sector - in companies dealing with import, export and transit of goods, logistics, freight forwarding, customs or tax affairs, accounting, auditing. After proving themselves as competitive employees during their internships, some students are offered jobs in these companies. As a result, graduates are also in high demand in the private sector.

Given that the graduates are awarded a PMO certificate (in English) along with their higher education diploma, there are ample opportunities to work using the acquired knowledge and skills also outside Latvia. From 2022, graduates will also be awarded a certificate from the European Commission, certifying that the programme provides the EC's customs competences for work in both the public and private sectors in the EU.

This raises the issue of state support for this programme. Only 3% of all RTU budget places have been allocated to the study programme "Administration of Customs and Taxes" at Bachelor's and Master's study levels. While in the 2017/2018 academic year, the programme provided 16% of all RTU fee income to students, the situation has changed dramatically, given the increase in tuition fees and other factors. This shows that security programmes have disproportionately small number of budget places and that the programme has developed thanks to a strong attraction of fee-paying students. While in 2017 there were 116 full-time and 116 part-time fee-paying students, by 2022 there were only 19. Analysing the number of students in the study programme by type of funding, i.e. state budget-funded study places and fee-paying study places, it can be concluded that the number of fee-paying students in the study programme exceeded the number of state budget-funded students by 2020. However, with the increase in full-time tuition fees from 2020, the number of fee-paying students decreased (**see 3.1.4. point Annex 5\_Students Statistics**).

Looking at trends in external environment conditions, geopolitical developments and global changes, there is no doubt that the demand for staff in both the public administration and the private sector is not decreasing, and that the demand for customs and tax specialists is not expected to decrease.

Publicity events are organised regularly to attract more students. For example, on 30 June 2020 RTU Online presented the study programme "Administration of Customs and Taxes" and future career opportunities, the conversation was attended by the Director of RTU International Business and Customs Institute (IBCI), Dr.oec. Aivars Vilnis Krastiņš, Director of the SRS National Customs Board Raimonds Zukuls and the programme graduate Ēriks Gutbergs, pro-curator of the logistics and warehousing services company "MMD Serviss".

Director of IBCI Aivars Vilnis Krastiņš and Director of SRS National Customs Board Raimonds Zukuls regularly participate in broadcasts of Latvian public media, e.g. Latvian Radio, Radio SWH Rock on challenges in customs work and education of customs officers in Latvia. On 24 January 2023, a webinar was held online on RTU Facebook platform on the topic "Customs today and in the future", with the participation of docent Aivars Gulbis and a graduate of the programme, who talked about current issues and career development in the field of customs.

Every year, visits are organised to secondary schools in the regions, such as Latgale, Zemgale, Liepāja and Vidzeme. During the visit, students and teachers are introduced to the study opportunities in the "Administration of Customs and Taxes" programme.

The rationale behind young people's choice to study this programme is both economic and social. Prospective students see secure job opportunities in the public sector, demand for customs and tax specialists in the private sector, opportunities to obtain social guarantees, job offers in various companies related to international trade, in a wide range of institutions and companies in the context of tax administration. The opportunity to work for foreign companies and institutions, international organisations and EU institutions is a significant appeal factor. Various indicators, such as the WCO (**see Annex\_WCO Certificate**) and EC certificate (**see Annex\_EC Certificate**), point to the programme's visibility, high ratings and quality of studies. The geographical location of Latvia, the flow of imports, exports and goods in transit, the international commitments undertaken by Latvia, geopolitical events closely related to the exercise of state functions give a clear signal of the importance of the programme "Administration of Customs and Taxes" for society and the



economy. This is backed up by surveys of students and graduates and analysis of their employment.

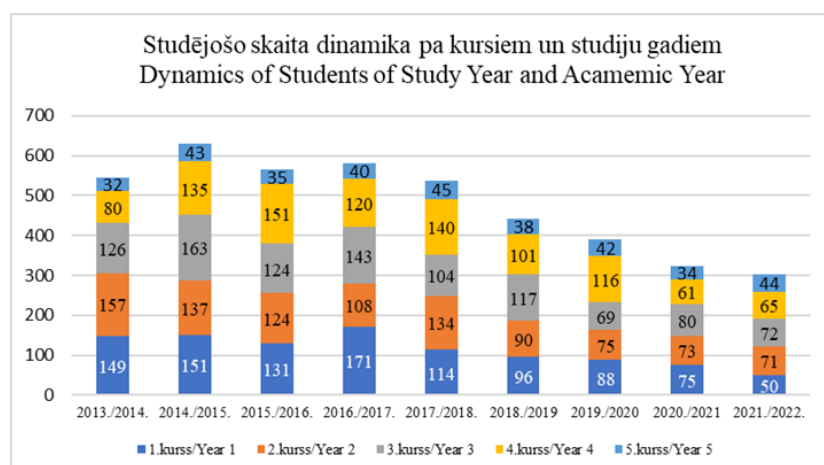
At the same time, the limited support of the state budget for the study programme prevents the preparation of more specialists in the field of customs and taxation, which should meet the needs of both public administration and commercial structures. This situation in the field of customs education does not meet national needs, the functioning of the EU Customs Union, or the international objectives of enhancing the role of customs in border security and the fight against international terrorism.

One of the most important indicators of a study programme is the employability of graduates. According to the data, students already become potential employees by choosing internships in their 3rd year, showing commitment, dutifulness and a sense of responsibility during the internship. Most of the students graduating from the programme are already working in the State Revenue Service and other Latvian state administration institutions, foreign trade-related companies, banks and audit firms, as well as in companies outside Latvia and in the World Customs Organisation.

An analysis of the information collected for the period 2017-2020 shows that the indicators related to graduate employability are not a cause for concern. The employment rate of graduates (for whom data on employment status are available) is at 90%, employment in higher skilled occupations is 70% one year after graduation and 75% three years after graduation. The average income of graduates is in line with the industry average, tending to rise by around 20% per year in the first years after graduation. Less than 1% of graduates have emigrated, 3%-4% are setting up their own businesses. According to NACE classification, most graduates work in public administration and defence, followed by transport and storage, wholesale and retail trade. According to the main occupational groups (ISCO), around 50% of graduates work as professionals, 20% as senior professionals, 20% as servants and 10% as service and sales workers, with 1%-2% working as managers.

### 3.1.4. 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 into different study forms, types, and languages.

The total number of students enrolled in the Professional Bachelor study programme "Administration of Customs and Taxes" in 2022/2023 is 242. (see **Annex 5\_Student Statistics**).



Summarising and analysing the total number of students in the reporting period, the number of fee-paying students in the programme is decreasing year by year, but there is no sharp decline. At the same time, the number of students in the programme is in line with the current demographic situation in the country. Other reasons for the change include the desire of secondary school graduates to study abroad, government policy to reduce the number of social sciences students in favour of the sciences, and the annual decrease in the number of state budget places. From 2017/2018, tuition fees for full-time studies were increased every year.

The study programme consists of two study fields - "Customs Administration" and "Tax Administration". After the 1st year, students have to choose one of the professional specialisations.

The higher number of students in both full-time and part-time studies is observed in the customs field, which accounts on average for 68% of the total number of students, and in the tax field for 32% of the total number of students. The high percentage of customs field has already marked future prospects (see. **Annex 5\_4.Dynamic of Students on Direction of Specialization and Academic Years**).

Analysing the data on the number of full-time 1st year students matriculated on state-budget funded places, the number of budget places varies from year to year, depending largely on both the number of graduates from the previous year who studied on state-budget funding and, as a second factor, the number of budget places allocated by the state. At the same time, the number of fee-paying students has been steadily declining in recent years, largely due to tuition fee increases.

The number of students enrolled in 1st year part-time extramural studies has been relatively steady, but in the last two years the number of part-time extramural students has also decreased (see **Annex 5\_2.Distribution of Students by Study Types**). As all part-time students work in parallel, the decline in the number of people wanting to study can be explained by the economic and geopolitical instability in the country.

Comparing the data on the number of students matriculated in the 1st year of study against the number of graduates of that year, it can be seen that the highest number of matriculated students was observed in the 2013/2014 and 2015/2016 academic years. The number of state-funded places was increased during this period. However, looking at the data over the last three years, the number of students enrolled in both full-time and part-time studies has been decreasing each year. This is largely due to the increase in tuition fees for full-time, in-presence studies, which creates a financial burden for potential students and a reluctance to take on credit commitments. (see **Annex 5\_3.Number of Matriculated Students in 1st Year**).

Since its establishment in 1994, 3,379 young professionals have graduated from the Bachelor programme by June 2022. 2006 was the first graduation of professional bachelors of the study programme "Administration of Customs and Taxes" (see **Annex 5\_5.Dinamic of Graduates Students of Study Types**). The reasons for changes in student numbers are linked to the economic situation in the country, the level of state support, migration, pandemics and the impact of geopolitical events. Student numbers are also affected by drop-out. For a more detailed look at student drop-out and the reasons for it, see **Annex 5\_6.Students Dropout**.

The highest drop-out rates are observed in the first two years. For example, in 2021/2022, the number of students dropping out is 7.6% of the total number of students. The biggest drop-out is due to students' failure to study, with particular difficulties in maths and science subjects. This is due to the low level of mathematics knowledge in Latvian schools. To reduce the drop-out rate due to higher mathematics achievement, RTU conducts an annual mathematics assessment (testing) of enrolled students. Based on the test results, students with poor maths skills are offered extra maths lessons at no extra cost, with the aim of improving their knowledge and reducing drop-out rates.

Another important reason for dropping out is taking up employment, especially in the 2nd and 3rd years of full-time study. Students cannot combine work and studies, often choosing to work.

**3.1.5. Substantiation of the development of the joint study programme and description and evaluation of the choice of partner universities, including information on the development and implementation of the joint study programme (if applicable).**

## **3.2. The Content of Studies and Implementation Thereof**

**3.2.1. Analysis of the content of the study programme. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators with the aims of the study course/ module and the aims and intended outcomes of the study programme. Assessment of the relevance of the content of the study courses/ modules and compliance with the needs of the relevant industry, labour market and with the trends in science on how and whether the content of the study courses/ modules is updated in line with the development trends of the relevant industry, labour market, and science.**

The Professional Bachelor's study programme "Administration of Customs and Taxes" involves studying relevant courses in economics, management, law and humanities, etc. through lectures, practical classes, laboratory work and independent works. The programme provides students with both general and professional knowledge of the specialty, leading to a versatile industry specialists. In order to ensure the achievement of the goals and objectives set for the programme in the best possible quality, the first year of study includes compulsory study subjects - general education courses and general industry courses, which form the basis for acquiring special knowledge and practical skills during further studies, as well as ensure the acquisition of practical skills necessary for professional activity.

**The aims and tasks of the study courses included in the programme are in line with the aims and tasks of the study programme** to provide professional education applicable in practice, in line with the trends of the labour market, economy and society, based on scientific knowledge in the field. The content of the programme provides a set of knowledge, skills and competences in accordance with the knowledge and skills of the 6th Level the Latvian Framework for Education Classification. The main components of the programme are study courses, a study internship outside the educational institution and a state examination, which includes the elaboration and defence of a Bachelor Thesis.

<i>Programme Components</i>	<i>Volume, CP (ECTS)</i>	<i>% of Total Volume</i>
Compulsory Study Course (Part A), of which:	86 (129)	54%
• Basic Theoretical Study Course (Part A1)	14 (21)	10%
• Basic Theoretical Study Course of the Industry (Part A2)	36 (54)	22%
• Industry Professional Specialization Study Course (Part A3)	36 (54)	22%
Compulsory Elective Study Course (Part B), of which:	34 (51)	22%
• Field-Specific Study Course (Part B1)	28 (42)	19%
• Humanities and Social Sciences Study Course (Part B2)	2 (3)	1%
• Languages (Part B6)	4 (6)	2%
Free Elective Study Course (Part C)	6 (9)	4 %
Practical Placement (Part D)	20 (30)	12%
Final Examination (Part E)	12 (18)	8 %
Total:	160 (240)	100%

The content of the study programme is provided in general and professional study courses. The structure of the study courses is organised on three levels. The theoretical core courses and the professional specialisation courses included in the compulsory courses of study are compulsory for all students. In turn compulsory elective courses - both theoretical and vocational - there is a greater emphasis on skills development and professional training. In the free elective part, the student shall obtain the required number of credits by selecting study courses according to his/her chosen specialisation. Students demonstrate their competence through Practical Placement and Bachelor Thesis.

The content and scope of the examination shall comply with the content of the course programmes and the skills and knowledge requirements of the professional qualification. All conditions for obtaining credits are described in the course description for each course (**Annex\_10\_Study\_Courses**).

The study programme includes study courses that ensure the acquisition of knowledge and skills in accordance with the professional standards of the Republic of Latvia in the field of customs and taxation, as well as the professional standard developed by the WCO and the EU Competence Framework. The **mapping** of the outcomes to be achieved by the study programme and study courses (**Annex 8\_Study Courses Mapping**) indicates the impact of each study course on the achievement of the outcomes of the study programme. The analysis of the study programme parts and courses confirms that the study content meets the requirements of the profession standard in logical proportions. The majority of study outcomes are covered by compulsory study courses (54%) followed by common restricted elective study courses (22%), of which professional specialisation study courses (19%). The group of language, humanities and social studies courses contributes 2% and 1% respectively to the achievement of the programme outcomes. Practical Placement and Bachelor Theses - 12% and 8%. Free electives study courses account for 4% of the total study programme.

The study plan is designed to ensure continuity of study content. All conditions for obtaining credits are described in the course description for each course. Research is carried out throughout the studies.

In addition to classroom sessions and independent work, students are organised study excursions to companies and institutions in the sector - customs and tax administration units of the State Revenue Service (customs control points, customs laboratory, client service halls), customs warehouses, logistics centres. This is also ensured by cooperation agreements with industry.

Courses are designed around the most relevant issues for the sector, taking into account the role of the customs and tax system in society and the economy, the objectives, functions and tasks of the

customs and tax administration, and changes in the external environment. Events such as BREXIT, the COVID-19 pandemic, terrorist activities, international migrant crises, wars in different regions of the world make it necessary to reassess the priorities of customs functions, improve customs control methods, develop new cooperation methods, IT solutions and process organisation models. Changes in issues relevant to the sector require the updating of existing courses and the introduction of new ones. The content of each study course is therefore in line with current industry and labour market needs. Courses are designed to take account of current research and scientific trends. In recent years, changes have affected study courses related to supply chain security, the legal framework of customs matters, integrated border control, the implementation of customs functions, the functioning of the EU Customs Union, and tax administration. For example, in 2021, a high-level expert working group set up by the European Commission developed proposals on measures to be implemented to make the EU Customs Union fit the geopolitical situation in Europe.

The study programme regularly reflects on improving the form and process of study. The changes are mainly focused on replacing the learning style with "teaching to learn" and integrating information technology into management decision-making.

One of the cornerstones of course content evaluation is the involvement of students in the development of course content, thus enabling students to actively participate in proposing and implementing improvements to course content. One such measure is the **student questionnaire**. (***Student questionnaires are analysed in more detail in Annex of Point 2.2.4***). In the questionnaire, the student has the opportunity to evaluate each study course according to a number of criteria relating to the study content, the performance of the teaching staff, the quality of the work, the study environment (premises, equipment, available literature), how the course links theory with practice, the attitude of the teaching staff towards the student, whether feedback was given, respect for students' rights during classes, whether the evaluation criteria were explained at the beginning of the first lecture, and other questions. At the end of the questionnaire there is a section for students' opinions, suggestions and recommendations to improve the quality of the course and sometimes also the quality of the teaching staff. The questionnaires are filled in anonymously so that the answers given cannot influence the teacher's attitude towards a particular student or group of students and so that the aim of obtaining an objective evaluation of the students is achieved. Students themselves and the IEVF Student Self-Government actively participate in the questionnaire and results analysis process. The results of the student questionnaire are regularly discussed at the Customs and Taxation Department meeting and appropriate improvements are decided. In addition, each member of staff has the opportunity to evaluate the results of their work and take measures to improve the quality of their studies. The analysis of the student questionnaires for the period 2013/2014 - 2021/2022 shows that the students highly appreciate the study courses included in the study programme.

In response to the results of the student survey, the Department is working extensively on the preparation and publication of teaching literature. During the reporting period, several RTU books in the field of customs and taxation were published, as well as several books by internationally recognised experts were commissioned, including on EU customs and taxation matters, topical customs, taxation and security issues. In 2021, internal refresher courses were organised, in which all lecturers at all levels of study received training in the use (and explanation) of summative assessment in the e-learning environment; In order to provide students with more opportunities to acquire practical skills, the course "Risk Management of Customs" takes students on a field trip to the Terehova and Grebnevo Customs Control Points, as well as real-life situations simulating customs control measures by a customs officer and a passenger carrying banned or restricted substances in their luggage. During the implementation of study courses in sub-programme

"Administration of Taxes" study courses, specialists from the Ministry of Finance and tax administration are invited, Deloitte representative guest lectures on innovations in tax technology, representatives of various companies organise open days for students at companies (e.g. audit, tax, accounting company "BDO", audit company "Ernst & Young Baltic SIA") to introduce students to current issues and company activities in tax, audit and accounting, offering internships to the students.

The results of the alumni survey are also collected every year and show that the majority of alumni have a positive view of the programme as a whole. **(see Annex to Point 2.2.4 Alumni questionnaires for details)**

In the reporting period 2013/2014 - 2021/2022, 64% of graduates answered that they are satisfied with their choice to study at RTU, 26% are partially satisfied, 9% have a neutral rating and 1% have no rating.

When asked about choosing the right programme, 91% of graduates agree, 6% are neutral, 2% partly disagree and 1% disagree.

The results of the questionnaire on theoretical knowledge and practical skills acquired during studies show that 65% of graduates strongly agree that the knowledge acquired has practical added value. Almost all graduates (90%) indicated that they are satisfied with the provision of classroom aids (projector, whiteboard, etc.), so there is no need for major improvements in the technical support. Nevertheless, technical equipment is regularly improved, e.g. in the 2019-2021 academic year, cameras and microphones were installed in all classrooms for remote study organisation, and interactive whiteboards were installed in several classrooms.

Analysis of the alumni survey shows very high ratings for the availability of teaching materials and information. The work and responsiveness of the administrative staff was also rated as excellent and outstanding in the alumni questionnaires.

Suggestions for improving studies made by graduates are regularly discussed and taken into account when changes are made to the programme.

To ensure that the study programme meets the requirements of the labour market, employers' opinions on students' skills and competences during their internships are collected and analysed. The most highly valued skills are the use of information technologies, including customs information systems (EMDAS, ITVS, etc.), tax or accounting systems (SRS Electronic Declaration System, Horizon, Finawin, Tilde Jumis, Power BI, etc.), students' knowledge of EU regulations, directives and national legislation. Employers also praise the attitude of the students, saying they are very thorough, work well in teams, are independent and have a sense of responsibility. This is also reflected in the high average score (8-10) of students' internship reports. Moreover, students are involved in important work, for example, in the project of preparing seminars on tax changes, in the process of creating training scenarios for the SRS virtual assistant TOMS and even in operational work, participating in control measures, assessing risky taxpayers, performing appropriate tasks within administrative or criminal proceedings on which information is classified. Students are also involved in tasks related to the mandatory automatic exchange of tax information in relation to reportable cross-border schemes in accordance with the Authority's policies, standards and procedures on anti-money laundering and combating the financing of terrorism.

**3.2.2. In the 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. In the 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 (if applicable).**

**3.2.3. Assessment of the study programme including the study course/ module implementation methods by indicating what the methods are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. In the case of a joint study programme, or in case the study programme is implemented in a foreign language or in the form of distance learning, describe in detail the methods used to deliver such a study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

For the successful implementation of the professional bachelor study programme, methods are applied which are derived from the aim and tasks set for each study course in order to achieve the final result.

The **methods** used in the study programme contribute to the achievement of the objectives and results of the study courses and the programme, taking into account the principles of student-centred teaching and learning. One of the basic principles of the study programme is democracy and dialogue with students, their active involvement in the improvement of the study process. Students can participate in the improvement of the study process directly - by expressing their wishes to the lecturer of a particular study course, head of the department, programme director, or through the student self-government, whose representatives are members of the FEEM Council, RTU Senate and RTU Senate committees, as well as members of the RTU Academic Assembly. As defined in the Student-Centred Learning Handbook, student involvement in the learning process and content development is ensured through both additional responsibilities and empowerment. Students have the opportunity to influence the study process, create their own autonomy, and provide feedback on the study process, aligning it with their interests. Students' complaints are evaluated and, objectively identifying shortcomings in the organisation of the learning process, some lecturers are replaced. It should be noted that the Head of Department meets regularly with the seniors of each year group to solve problems and involve students in improving the study process.

The study process is basically provided by the International Business and Customs Institute of RTU FEEM, its structural units, teaching staff and administrative staff. The RTU faculties, institutes and the departments included in the educational process provide educational and methodological work: they create and renew study subject programs, ensure the teaching of relevant study subjects, management and defense of diploma theses, and carry out other activities related to educational, methodological and scientific work.

The study process is designed as an active, engaging process for students, including lectures, seminars, discussions, solving situations and practical tasks, individual and group work, including research work, visits in companies and field trips, internships, guest lectures by representatives of employers. Particular attention is paid to one of the most common methods of active learning - *case studies*. Situational analysis develops students' thinking and their ability to find solutions to specific problems, for example, in the study course "Criminal Law and Criminal Action", a specific customs

or tax offence is analysed and students have to describe the entire process, up to the imposition of a penalty.

*Role plays* are used in the courses. Students play different roles, acting out situations relevant to the profession, both in the field of customs control (e.g. checking a natural person's luggage at the airport or making a cargo declaration at a customs control point) and tax matters (e.g. calculating taxes in a company, submitting a natural person's declaration on the SRS portal, etc.). For example, the study course "Model of Functioning of the Customs and Tax Administration (business game)" aims to link students' knowledge of accounting, logistics, law and supply chains with the skills to manage the customs clearance process. This includes risk analysis, client assessment (including under the Sanctions Law), commodity code selection and the preparation of supporting documents, the preparation of customs clearance documents and the application of the procedure to different groups of goods from non-EU countries. During the game, students are divided into groups of 5-7 people and take on roles (accountants, logisticians, managers, customs officers, etc.) and have the opportunity to act out schemes for sourcing goods from third countries, choosing real (real-life) producers or distributors of the goods. The delivery scheme developed includes situational awareness, starting with the choice of producers, the choice of transport and the design of an optimal route, all the way to the clearance (free circulation) and delivery of the goods to the consumer. At the same time, great attention is paid to assessing the performance of all those involved in the movement of goods, including national control authorities, in the light of both the geopolitical and economic situation in the world.

However, it should be recognised that more sophisticated teaching methods can only be used qualitatively from the second or third year onwards, as students who have just graduated from secondary school (full-time) and graduated some time ago (part-time) lack experience in using sophisticated teaching materials.

Major emphasis in classroom work is on interactive forms of study: working in small groups, developing, discussing and publicly defending coursework and research projects.

Teachers are increasingly using H5P tools (presentations, short industry videos, branching scenarios, etc.) to improve the content of their courses. Examples include courses such as "Introduction to Specialty" and some sub-programme "Administration of Taxes" study courses. In turn sub-programme "Administration of Customs" short videos on customs work are used in courses of field of study.

To help students understand complex issues, teachers actively use new interactive platforms (e.g: *Padlet; Miro; Kahoot; Moodle*), linking theory with practical examples, making it easier for students to learn and understand their courses.

As internationally recognised and widely applied methods are used for the implementation of the study programme in Latvian, no different approach is provided for the implementation of the study programme in English. It should be noted that the programme implemented in English provides a study course for the acquisition of the Latvian language, as well as the implementation of the internship is ensured in English.

Students acquire research skills by regularly working with literature and internet resources in order to successfully produce a variety of coursework, internship reports and bachelor theses. This also promotes students' scientific and research work, work with international scientific databases available in RTU library with electronic access from ORTUS environment.

Students present their research work at **student conferences**. Such conferences for students of the Administration of Customs and Taxes programme are held regularly. It helps students to validate their initial research and improve their presentation skills before defending their final



theses. Proceedings of student conferences are published.

The criteria for the **assessment of students**, as well as the form and procedure of the examination, shall be determined by the teaching staff according to the results to be achieved and the objectives of the study programme. This information is provided in the course timetable, the course description and is also available in the ORTUS e-environment. This ensures that the assessment requirements are made available to students at the start of the course and that the principle of openness and clarity of assessment criteria is respected.

The assessment of students' knowledge can be divided into two parts: **formative (constituting) and summative (summarizing)**. Formative assessment in the study process has a diagnostic function, which allows to determine the amount of knowledge acquired by students in intermediate examinations and to provide feedback between the teaching staff and students. Summative assessment involves monitoring students' progress after a certain period of study and summarising the results. Teaching staff have the opportunity to assess students' performance and therefore the effectiveness of the learning process, i.e. the appropriateness of teaching methods, the quality of teaching resources and the dynamics of the learning process. The evaluation is based on both a qualitative system and a quantitative (points) system. For study courses of RTU FEEM programmes which end with a final examination (study courses with 1CP), the final evaluation ("passed/not passed") consists only of the evaluation obtained during the semester in the intermediate examinations. For those courses of study culminating in an examination, the final assessment shall be based on the conditions laid down by the member of the teaching staff responsible, which takes into account the examination as an element of the final grade and the marks of at least one intermediate examination. In addition, when determining the final grade for a course of study, the examination mark may not exceed 50% of the final grade. The final grade of multi-part study courses implemented at RTU FEEM shall be determined as the weighted average grade of all parts (by multiplying the obtained grades by the volume of the relevant parts of the study course in credit points and rounding the result to the nearest whole number).

To recognize the achievements of students, RTU has established the Alumni Golden Fund, which includes the most outstanding and active RTU graduates, judged by both academic achievements and social activities. The Golden Fund also includes graduates from this programme: 2012/2013 academic year Diāna Mirovščikova; 2013/2014 ac. year Kristīne Šaraņina; 2014/2015 ac. year Aleksandra Prokopeņa; Anna Stepanova 2015/2016 ac. year Viktorija Kalašņikova; 2016/2017 ac. year Marika Ragucka-Ragovska; 2017/2018 ac. year Elza Čoiča; Karīna Kezika; Viktorija Lizunova; 2018/2019 ac. year Boļšakova Alīna; Reznieka Edīta; 2019/2020 ac. year Mažeika Baiba; Tīruma Santa; 2020/2021 ac. year Dana Drubiņa; Ieva Lazdiņa; 2021/2022 ac. year Diāna Priede.

It is important to note that students can participate in activities outside their studies and ensure a healthy lifestyle - RTU offers various types of sports activities, the opportunity to participate in a choir, dance group, etc. It should be noted that on 29 October 2022 students of the programme represented the RTU/Customs Self-Defence Team and won several prizes with the right to represent Latvia in international competitions.

Each faculty offers its students the opportunity to get involved in the Student Self-Government, which represents and defends students' interests, organises various educational seminars, sports games and cultural events. It's a great place for students to learn to develop their communication and work skills. If a student wants to get involved in student representation not only at the level of his/her faculty, but at the level of the whole university, he/she can join the RTU Student Parliament. The FEEM Student Self-Government is composed of representatives of all study programmes. Students of the "Administration of Customs and Taxes" programme are also active in self-government, developing their creative abilities and organising various events. This can help first-

year students get to grips with the study process and provide advice and guidance.

**3.2.4. If the study programme envisages an internship, describe the internship opportunities offered to students, provision and work organization, including whether the higher education institution/ college helps students to find an internship place. If the study programme is implemented in a foreign language, provide information on how internship opportunities are provided in a foreign language, including for foreign students. To provide analysis and evaluation of the connection of the tasks set for students during the internship included in the study programme with the learning outcomes of the study programme (if applicable).**

The tasks of the Practical Placement are closely related to the study programme outcomes and the requirements of the professional standard. The Practical Placement is a compulsory component of the bachelor professional programme "Administration of Customs and Taxes" and its scope is 20 CP (30 ECTS).

Until 1 July 2019, the study internship was implemented in accordance with the procedure approved by the RTU Senate on 29 March 2010 (Protocol No 539) and in accordance with the methodology developed by the unit implementing the study programme. Currently, a new document "On the Procedure for Organising Internships at Riga Technical University", approved at the RTU Senate meeting on 28 January 2019 (Protocol No 626), is in force. The organisation of the internship shall be in accordance with this Decision and the Internship Regulations approved by the Department. Before the start of the Practical Placement, a tripartite Practical Placement agreement is signed, a Coordinator and an Practical Placement Supervisor are appointed (***Annex\_RTU Practical Placement Regulation***).

The internship is carried out in public administration institutions or companies (enterprises) whose activities are related to customs, tax administration, tax payments and international economic relations. Students of the customs field of study acquire practical skills at Customs checkpoints, Customs Administration departments, logistics and customs brokerage firms under the guidance of experienced customs experts and customs brokers. Whereas, students of the tax field of study acquire practical skills at the SRS Tax Administration, other state institutions and state or private companies, audit companies under the guidance of experienced tax consultants, auditors and accountants. Practical Placement supervisors are often graduates of different levels of the Administration of Customs and Taxes programme.

The Practical Placement are organised according to the following concept:

- 1) We provide students with Practical Placement both at the State Revenue Service (for both customs and taxation) and in companies;
- 2) Part-time students are allowed to undertake an Practical Placement at their place of work in cases where the workplace can support the study programme;
- 3) where the student has relevant work experience in customs and/or taxation, the possibility is granted to count work in a company or institution as an Practical Placement. In this case, a commission is set up to assess whether the work experience meets the objectives of the internship. In accordance with the criteria set by the Cabinet of Ministers Regulation No 505 and Regulations (approved on 14.08.2018) "Procedure for Recognition of Competences Acquired Outside Formal Education or Obtained in Professional Experience and Study Results Achieved in Previous Education

at RTU" (approved by the RTU Senate Decision No.632 of 23.09.2019, protocol No. 632), students' work experience enables them to count their work as an internship.

Students have an Practical Placement in their chosen specialisation. The scope of Practical Placement of Professional Bachelor study programme - IMP741 Practical Placement (Administration of Customs Practical Placement) and IMP745 Practical Placement (Administration of Taxes Practical Placement) from 1 September 2016 is 20 CP (30 ECTS), divided into two parts - 10 CP (15 ECTS) and 10 CP (15 ECTS).

**IMP741 Practical Placement** develops students' ability to work independently, acquire practical skills and competences in the chosen sub-programme "Administration of Customs". The main objective of the Practical Placement is to systematise and consolidate knowledge of the work of institutions, bodies and enterprises in the field of customs, to acquire the necessary skills and competences to promote professional competence and the practical application of knowledge relevant to the sector.

The aim of the first part of the Practical Placement is to become familiar with and understand the organisation of the workplace, the division of functions, to orient oneself in the regulatory enactments related to the traineeship, to understand the principles, meaning and relevance of the workplace, as well as to develop independent and teamwork skills.

The tasks of the second part of the Practical Placement are to acquire professional skills and competences, to expand theoretical knowledge of customs clearance processes and procedures, to analyse customs risks, to perform customs control measures, to obtain, process and analyse information necessary for the elaboration and defence of the Bachelor Thesis.

The aim of the **IMP745 Practical Placement** is to develop students' ability to work independently, to acquire practical skills and competences in the chosen sub-programme "Administration of Taxes", to acquire skills and competences that are necessary in the areas of tax collection according to the specialisation.

The aim of the first part of the Practical Placement is to become familiar with and understand the organisation of the workplace, the division of functions, to orient oneself in the regulatory enactments related to the traineeship, to understand the principles, meaning and relevance of the workplace, as well as to develop independent and teamwork skills.

The tasks of the second part of the Practical Placement are to learn how to apply the laws and regulations governing taxes and duties, to understand the planning and organisation of the work of administration of taxes units, to strengthen skills in taxpayer risk analysis, drafting documents, assessing the reliability of returns and reporting data, to process and analyse information necessary for the preparation and defence of a Bachelor Thesis.

At the end of the Practical Placement, students prepare and defend an Practical Placement report, which serves as a basis for the Bachelor Thesis. The Practical Placement is evaluated by the Practical Placement supervisor and the Practical Placement defence committee, taking into account the defence of the Practical Placement report and the feedback from the company. Practical Placement defence committees are set up by order of the head of the responsible unit and include representatives of employers. The evaluation results are entered into the ORTUS system.

The most responsive state institutions and companies where students have had Practical Placement are State Revenue Service, A/S "Swedbank", A/S "Rietumu Banka", SIA "Deloitte Audits Latvia", SIA "PricewaterhouseCooper", A/S "KPMG Baltics", SIA "Ernst&Young Baltic", SIA "DHL Latvia", SIA "Do it", A/S "Latvijas Pasts". Companies often value the knowledge and skills of trainees, which is a testament to the quality of the study programme.

Several Practical Placement supervisors have given good feedback on the students. **A/S "Swedbank"** speaks highly of its trainee: "The trainee had access to various Swedbank AS internal trainings and presentations, for example on the area of AML/CFT; sanctions; modes of freight transport, their risks, transactions. In order to understand the organisational structure of Swedbank Group, the trainee had access to internal materials, the objectives and responsibilities of the various departments of Swedbank Group, and financial data of Swedbank AS. The trainee was familiarised with the regulatory enactments governing the work of Swedbank AS, as well as with the risk policy and risk assessment data. During her internship, she learned the bank's STAR system, as well as many other important applications needed to analyse client transactions. The trainee had access to various internal and external databases from which to obtain information on Swedbank AS clients. The trainee participated in joint client analysis meetings, where she gave her opinion on the client's risk."

A representative of **SIA "Assistants to Business"** speaks about their trainee: "SIA "Assistants to Business" aims to provide the highest quality outsourced accounting services to help clients achieve their business goals. Attracting and developing the best staff is a critical element in achieving this goal. That's why we take great care in the selection of employees and trainees. We believe that if a person has worked for us for any significant length of time, it is a reflection of their professional and personal qualities. The student, who is on internship with us, is responsible for the day-to-day day accounting operations of clients, including tax calculations and returns, as well as communicating with the SRS on tax control measures. The student shows a very responsible attitude towards the clients entrusted to her, is able to solve complex tasks, and communicates correctly with clients. We are very happy to have the student working with us."

Feedback from the **Customs Control Point (CCP) of the National Customs Board** of the State Revenue Service: "The student was familiarised with the safety and briefing at the CCP, the internal rules of the CCP, the organisation of work at the CCP, the SRS Customs Standard, the CCP Job Descriptions and the performance of duties at the relevant workplaces. Works with registers available in the CCP - KS, EMDAS, Superstore, ITVS, DVS, CMIS. Supports senior customs supervisors in carrying out customs physical controls and in the processing of customs documents. Prepares customs inspection reports on controls carried out, participates in the application of preclearance operations, and controls customs declarations and other customs documents. Is client-oriented. Advises clients, ensuring faster compliance with customs obligations."

**"SIA "AAT-FINANCE"**: "The trainee is able to set adequate tasks for self-improvement, to evaluate her professional activity by assessing and analysing her successes and failures, and is aware of her abilities, strengths and weaknesses in her professional competences. The work is positive and there is a clear interest in learning the specialty."

**SIA "Euro Live Technologies"**: "The trainee is able to reason logically, argue her case persuasively and fit into the working environment. The interest shown in the company's processes at the internship demonstrates the student's desire to work in the sector. I would love to have such a person in my team."

The study process is geared towards cognition and capacity-building, based on studies and Practical Placement in the institutions and companies already mentioned, as well as (for some students, especially part-time) work in an independent workplace.

The programme administration is aware of the seriousness of the Practical Placement issue and is actively involved in providing new Practical Placement for students, and the teaching process is organised in such a way that the topics of students' teaching and research work are related to customs and tax administration issues. The implementation of the Practical Placement is coordinated with the SRS to ensure maximum involvement of students in the practical tasks of the

SRS in client service halls, etc.

Students can also find information about Practical Placement at the RTU Career Centre ([RTU Career Center](#)) and the RTU Development Foundation ([RTU Development Fund](#)).

There are companies that organise Career Days for students. Such are, for instance, SIA "DHL Latvia", SIA "Ernst & Young Baltic", SRS. Students get information about the sector, available internships and work opportunities.

In 2011, an international student exchange for internships was launched. Thus, according to the cooperation agreement between RTU and St.Petersburg University of Information Technologies, Mechanics and Optics (Russia), in 2014/2015 we hosted St.Petersburg students for the fourth time, for which we have received a letter of gratitude from the university director E.L.Bogdanova. Due to the pandemic and the geopolitical situation, mutual cooperation has been interrupted.

In the spring semester of 2019/2020, a 3rd year full-time student went on an ERASMUS+ mobility placement, gaining work experience in the German company "MLC Logistic GmbH" in Mainz.

For the study programme in English, will be provide opportunities to organize Practical Placement in workplaces where the language of communication will be English, because, for example, the administration of customs affairs is closely related to international trade, which in turn is unthinkable without communication skills in English.

### **3.2.5. Evaluation and description of the promotion opportunities and the promotion process provided to the students of the doctoral study programme (if applicable).**

### **3.2.6. 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 marks of the final theses.**

At the end of the programme, students are required to produce a **Bachelor Thesis** (before than - diploma work) on a topical issue in administration of customs or administration of taxes. The Bachelor Thesis is publicly defended at the State Examination Commission. The Commission operates in accordance with the statutes approved by the Senate of the University and includes highly qualified specialists of the SRS tax and customs authorities, as required. A Bachelor Thesis is a serious piece of research, based on a topic of the student's choice. Students acquire research skills by regularly working with literature and internet resources, developing various study works, internship reports, participating in students' scientific research work. Students have the opportunity to work with international scientific databases available in the RTU library with electronic access from the ORTUS environment.

Bachelor Thesis are prepared in accordance with the methodological guidelines "Methodological guidelines for the preparation of qualification, bachelor and master theses" (2016) developed by the working group of the Department of Customs and Taxes and in accordance with the unified methodological guidelines of the Faculty of Engineering, Economics and Management "Methodological guidelines for the preparation of study and final theses" (Available only Latvian:

In the reporting period 2013/2014 - 2021/2022, the Bachelor Theses were rated on a 10-point scale from 4 (almost average) to 10 (outstanding). Most of the theses were graded between 7 (good) and 9 (excellent) ( see ***Annex\_Evaluations of Final Theses (Figure 1)***).

The final thesis assessment data are collected for full-time and part-time students from 2013/2014 to 2021/2022. During this period, the State Examination Commission awarded 10 (outstanding) to 4% (34 students), 9 (excellent) to 18% (155 students), 8 (very good) to 26% (219 students), 7 (good) to 25% (213 students), 6 (almost good) to 20% (169 students), 5 (average) to 6% (61 students) and 4 (almost average) to 1% (10 students) of the total number of graduates.

The highest rating of 10 (outstanding) was awarded to Bachelor Theses that included in-depth research going beyond the requirements of a Bachelor Thesis. Some of these are: "Analysis of the examination of goods samples and related processes in the Customs laboratory", "Risk analysis of international supply chains in the company "Do it"", "Optimisation of the application of customs procedures in the company", "Evaluation of the implementation of the ATA carnet online system", "Analysis of the specifics of customs working dog training and development of the cynological service in Latvia", "Tax risks in transactions between related companies", "Improvement of the SRS customer service system", "Transfer pricing analysis in Latvia", "Improvement of the social insurance system for pensions", "Analysis of the operation of the Tax free system in Latvia", "Tax optimisation using e-currency", etc.

The topics chosen for the final theses of the sub-program "Administration of Customs" can be classified according to six main areas related to:

1. customs performance improvement, implementation of customs functions, customs ethics, personnel related topics;
2. the development and analysis of customs control measures, the application of technical means and cooperation between border control services;
3. the application, compliance, development and analysis of customs procedures, and the updating and clarification of the Combined Nomenclature;
4. analysis, improvement and optimisation of the customs activities of companies and customs-related businesses;
5. the determination, calculation, analysis, tariffs and rates of customs duties and the calculation of taxes;
6. the movement of smuggled and illegal goods, the detection and enforcement of administrative and criminal offences, and the analysis of Customs and Tax Police activities.

When breaking down the final theses by these areas, it can be concluded that there are no significant differences by year (see ***Annex\_Evaluations of Final Theses (Figure 2)***).

In the sub-programme "Administration of Customs" the most popular topics for Bachelor Theses in the reporting period have been customs performance improvement and customs control, while the least popular topics have been customs procedures and customs duties. This distribution is mainly due to the internships chosen by students during their studies. For many years, the largest number of internship placements is offered by the SRS and the topics of the final theses are most often chosen in relation to the internship placement, often with the internship supervisor as the supervisor of the final thesis. The Customs Control Points (CCP) offer the most internships and are consistently interested in students' research on improving operational and control measures. A smaller number of internships are offered in the units of the SRS National Customs Board related to the supervision and control of customs payments and the fight against illegal goods and smuggling. This is also reflected in the selected topics. In addition, it should be noted that the development of

these topics is not possible without the handling of confidential data, which is only available in the relevant departments of the SRS. Topics related to the application of customs procedures and the customs activities of companies were the most popular among part-time students who combine work in customs-related companies with their studies. These topics are basically chosen in agreement with the management and with the aim of improving the company's operations, often by substantially changing the original approach, especially in the storage and handling of import and export goods.

In the sub-programme "Administration of Taxes", students in their final theses study topical tax issues in the country in accordance with the priorities set out in national policy planning documents and strategies, initiatives and adopted plans of the European Union and international organisations, as well as recommendations of the State Revenue Service and other cooperation partners. The areas of sub-programme "Administration of Taxes" can be divided into: tax administration, tax compliance and other topical tax, accounting and binding issues. Thus, students focused on the analysis and possible improvement of tax administration, including how to improve tax audit, inspection, control, risk analysis, consulting, servicing, registration or other processes. The final theses also explore how to promote tax compliance, the role of taxation in national or local budgets, how to improve tax risk management in companies, cooperation with commercial banks and other partners, international cooperation in tax administration, current issues in international tax enforcement, current accounting, operational or financial management issues in companies.

Most of the work is on improving tax administration processes (regularly around 75%), less on tax compliance by companies (around 13% annually) or financial analysis and other related issues (around 10% annually).

In recent years, the final theses have focused in particular on the fight against the shadow economy and envelope wages, tax administration in the digital economy, cryptocurrency taxation, improving excise controls, the VAT gap assessment, VAT risk assessment, labour tax competitiveness, the impact of COVID-19 on tax compliance, taxation in e-commerce, transfer pricing developments, taxation of remote working, sustainability of the tax system under the EU Green Course, improving tax administration under the OECD's Base Erosion and Profit Shifting (BEPS) package, and other key issues.

Every year, when students defend their bachelor theses, they receive praise from the State Examination Commission for the proposals they have developed and proposed, which are useful for improving both the tax administration and customs processes.

### **3.3. Resources and Provision of the Study Programme**

**3.3.1. 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.**

In the implementation of the study programme, the FEEM auditoriums, computer halls, methodological office, Customs and Tax History Museum, Customs Control Laboratory, material

base of the RTU Scientific Library are used. Students can use wireless internet throughout the building at Kalnciema street 6, as well as copy and print materials for their own use at the FEEM Information Centre (1st floor), and there is a student lounge with a collection of teaching and scientific literature on the 0th floor (in more detail in Selection 2 point 2.3.1.-2.3.3.).

The **auditoriums** located in the FEEM building, Kalnciema street 6, are used in the study process. All classrooms are 100% equipped with multimedia equipment, high-definition projectors, sound systems, cameras and internet access. The largest classrooms, which seat 120, are equipped with a touch-screen control panel. The classroom for group videoconferencing and distance learning is equipped with three HD cameras, a multimedia projector, two 55-inch LCD wall panels, professional sound equipment and a workstation with a modern PC and two 24-inch monitors. This makes it possible to ensure a modern and high-quality study process.

RTU students and faculty members have access to the extensive literature resources of the **RTU Research Library**, located at Paula Valdena street 5, [RTU Scientific Library](#), as well as the library's subscription databases, such as SpringerLink , Leta , Wiley Online Library , Scoopus, etc., which are continuously updated. An electronic catalogue of 12 libraries of national importance is available. Students have access to the databases subscribed in the RTU library, also by logging in through the ORTUS environment.

The Department of Customs and Taxes has two **computer rooms** equipped with multimedia projectors - 19 and 25 computers based on Intel i5 processors with 22-inch HD monitors and permanent high-speed internet connection, including 2 seats for teaching staff. Computer rooms are used for practical tasks, allowing students to learn the latest information technologies and databases. The Harmonizer computer software, developed together with the Swedish Customs Administration Training Centre and translated into Latvian, is used in the course "Harmonised Commodity System". New computer-based systems are being introduced:

#### 1. *EMDAS (Electronic Customs Data Processing System)*

EMDAS and its subsystems shall provide the possibility to submit such customs declarations and documents electronically:

- Import Control System (ICS) - entry summary declaration; import customs declaration;
- In the Export Control System (ECS): export declaration; export declaration with summary export data; re-export (return removal) notification; summary export declaration;
- In the Transit Control System (TCS): transit declaration; TIR declaration; transit and TIR declaration with summary declaration data;
- Manifest/Temporary storage module - Cargo manifest (for air transport); temporary storage declaration; information related to the accounting of goods in temporary storage facilities.

#### 2. *EDS (Electronic Declaration System)*

#### 3. *ITVS (Integrated tariff management system)*

Due to the fact that the Department of Customs and Taxes regularly organises refresher courses for both customs and tax professionals, students also have access to the latest information on developments in the customs and taxation system.

From the academic year 2017/2018 it is possible to organise regular classes with customs field students in a remote classroom in Daugavpils (including the equipment purchased and installed at the RTU Daugavpils Science Centre, Smilšu street 90, as well as in Riga, Kalnciema street 6).

The use of the RTU's internal electronic study environment **ORTUS** additionally provides students with information about a particular study subject, its learning requirements and methodological



materials. The introduction of ORTUS has expanded the possibility to work qualitatively with students and to additionally offer various study materials. Students can also track their performance in this electronic environment. Increasing the use of technology and the speed of information exchange make in-person classes more effective and encourage students to work independently.

**The 12 workstations in the offices of the teaching and administrative staff** are equipped with modern computers based on Intel i5 processors, 22-24 inch HD monitors, printing facilities for individual and collective use and a permanent high-speed internet connection. All teaching and administrative staff are provided with modern laptops to work remotely or on business trips.

Copying facilities are available to create handouts. All teaching and work computers use licensed Microsoft Windows 10, Microsoft Office 2019, Office 365, Zoom, MS Team and other support and application software. For practical training, the possibility to connect to the information systems of the Customs and State Revenue Service test environments is used.

[The Museum of the History of Customs and Taxation](#), located in the Faculty of Engineering, Economics and Management of Riga Technical University (RTU), Kalnciema street 6, room 112, is an important element in the training of students. It was established in 2008 by the RTU Department of Customs and Taxation in cooperation with the State Revenue Service (SRS) on the occasion of the 90th anniversary of the Latvian state. The Museum is an educational and research institution open to the public, a repository of tangible and intangible cultural treasures on the history of Latvian Customs and taxation from ancient times to the present. The Museum is under the administrative authority of the RTU Department of Public Affairs, while the RTU Department of Customs and Taxation oversees its methodological activities. The museum offers an exhibition "Taxes and Customs in Latvia", which tells the story of:

- the oldest forms of payment and how they are collected;
- on the tax and customs system of the Republic of Latvia from 1918 to 1940;
- on taxation and customs from 1940 to 1990;
- on taxation, customs and collection in the restored Republic of Latvia;
- on excise goods and smuggling.

The exhibition includes historical documents from different periods, a collection of customs uniforms, and films on taxation and customs in Latvia and the European Union.

One of the museum's tasks is to carry out scientific, educational and cultural work in the museum, leading guided and thematic tours, and preparing and giving lectures according to the museum's profile. Classes on "Introduction to Specialty" are organised in the museum.

In 2019, the Customs and Taxes Department of the International Business and Customs Institute (SESMI) of the Faculty of Engineering Economics and Management of RTU with the support of the Customs Administration of the State Revenue Service established the **Customs Control Laboratory**. The laboratory is equipped with various measuring devices and technical aids used by customs officers in their daily work of inspecting vehicles and persons, such as density and radiation flow measuring devices, metal detectors, endoscopes, drug tests, etc., to check whether smuggled goods are concealed in vehicles. To train students to find smuggled goods, special hiding places have also been set up in hollow boards, car doors, seats, fuel tanks and tyres. The laboratory thus simulates the hiding places often used in Latvia for the transport of illicit goods. The laboratory is also equipped with equipment for showing various customs control training films and videos.

The laboratory contains a visual display of car axle scales, various tools and devices that customs officers work with on a daily basis, safety equipment (helmets, carabiners, goggles, etc.), a small number of contraband (counterfeit) goods, as well as samples of various imitation drugs to give

students a superficial idea of how customs work on a daily basis under different conditions, with different equipment and for a variety of prohibited goods and substances. The laboratory is also equipped with equipment for showing various customs control training films, videos and photos.

Students learn about working at customs points and undergo an internship. The laboratory provides another opportunity for students to acquire and develop practical skills.

**Self-defense training** plays an important role in the implementation of the programme. A classroom equipped with an interactive whiteboard is used for learning the theoretical basis of the training process, where together with the students the laws and regulations in force in Latvia related to the use and application of force, special means and firearms are analysed.

Practical training takes place in a specially adapted gym with a soft floor or tatami, which is certified to host international level competitions in various types of close combat (jiu-jitsu, karate, judo). During the training, students are issued with kimonos and personal protective equipment - helmets, gloves, body (torso) and leg protectors - to ensure safe and high-quality learning of practical skills. Special physical training, in particular the sense of distance and precision in combat is improved with a stationary precision, counterbalance trainer, the basics of punching technique are learned by performing basic elements on a dummy, human body simulation trainer. In the classes, before preparing for real-life situations, students are given several sessions with the use of punch receivers or paws and *makiwaras*. General fitness is developed using jumping ropes, dumbbells, weights and elastic bands.

In 2018, a shooting simulator was installed, which students use to learn basic skills and safety techniques related to the proper use and handling of firearms, as well as how to react to simple situations that may arise in the line of duty. Training at the shooting range is arranged where students are introduced and primarily trained to shoot with live ammunition.

Organised cooperation with the programme's largest cooperation partner and potential employer - the State Revenue Service - enables the training process to use **the infrastructure and technical resources of the SRS National Customs Board**, which are located in the CCP and other SRS units.

In 2022, within the framework of the ESF co-financed project "Development of Effective Management of Riga Technical University" (No 012/A/2.), significant improvement (digitalization) of several study courses (Introduction to Speciality, Taxes and Duties, Tax Risk Management) was carried out, supplementing the study course materials with modern solutions in H5P environment (interactive presentations, videos, tests, etc.).

### **3.3.2. Assessment of the study provision and scientific base support, including the resources provided within the framework of cooperation with other science institutes and higher education institutions (applicable to doctoral study programmes) (if applicable).**

### **3.3.3. Indicate data on the available funding for the corresponding study programme, its funding sources and their use for the development of the study programme. Provide information on the costs per one student within this study programme, indicating the items included in the cost calculation and the percentage distribution of funding between the specified items. The minimum number of students in the study programme in order to**

**ensure the profitability of the study programme (indicating separately the information on each language, type and form of the study programme implementation).**

The Professional Bachelor's study programme "Administration of Customs and Taxes" is implemented both as a tuition-paying programme and a state funded programme. A total of 89 budget places are currently available for the programme across all courses.

Information on the breakdown of funding between cost items is provided in the Annex "Breakdown of funding between cost items" of the Self-Assessment Report. Information on the cost per student is given in the Annex "Funding by Positions by the period from 2013-2022". Information on the minimum number of students required for the study program is given in the Annex to the Self-Assessment Report "On minimal number of students in study programmes".

Traditionally, the study programme has been mainly financed by tuition fees. By 2008, the programme had trained several thousand customs and tax administration specialists without using budgetary resources.

During the reporting period, the total funding for the programme has increased from EUR 719,621.00 in the academic year 2013/2014 to EUR 716,115.89 in the academic year 2021/2022. The grant for the programme has increased from EUR 205,454.00 in the academic year 2013/2014 (representing 28.55% of the total funding) to EUR 406,341.69 in the academic year 2021/2022 (representing 51.85% of the total funding).

However, the cost per student has increased from EUR 3,866.00 to EUR 6,846.46 over the same period, and the number of fee-paying students has decreased significantly due to a substantial increase in tuition fees.

As a result, with a seemingly stable overall funding, the total number of students has decreased, indicating the difficulties in training quality professionals for the public and private sectors in the field of customs and tax administration.

The solution could be to allocate additional budget places to the programme, taking into account the known needs of the sector, to reduce tuition fees and to waive study loans for graduates who have entered the public sector.

For full-time and part-time students studying in the national (Latvian) and English languages, to ensure the profitability of the study programme, the minimum number of students in the programme is 15 students.

### **3.4. Teaching Staff**

**3.4.1. 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 implementation of the Professional Bachelor Study Programme "Administration of Customs and Taxes" involves both RTU elected academic staff and guest lecturers, as well as highly qualified leading specialists in the field. The design and content of the course is the responsibility of the elected academic staff. The qualifications of the academic staff and guest lecturers involved in the study programme fully comply with the conditions of the study programme and the requirements of the regulatory enactments. More detailed information on academic staff and guest lecturers, as well as the level of knowledge of English, can be found in the CV (**Annex\_Teaching staff CV**).

32 elected teaching staff participate in the implementation of the study programme, of which 23 (72%) teaching staff have a doctoral degree and 9 (28%) teaching staff have a master's degree.

Analyzing the data on the academic staff elected at RTU, it can be concluded that 15 (48%) representatives of the academic staff have been elected to the position of professor or associate professor, 6 (18%) to the position of assistant professor, 1 or 3% to the position of leading researcher and 1 to the position of researcher ( 3%). On the other hand, 6 (19%) with a master's degree have been elected to the position of practical assistant professor and 3 (9%) to the position of lecturer.

**Aivars Vilnis Krastiņš**, Dr.oec., RTU senior researcher. More than 60 years of academic work experience. Founder of the programme "Administration of Customs and Taxes". Chairman of the sectoral committee of the study field "Internal Security and Civil Defense". Director of the Institute of International Economic Relations and Customs, Accreditation Expert for World Customs Organisation Education Programmes (Belgium), Senior Expert at the Geneva Centre for Democratic Control of the Armed Forces (Switzerland). „Customs Scientific Journal”. (WCO RO for the European region ) Editorial Board Member. Member of the RTU Science Council, Member of the RTU IEVF Council, etc. (see CV). Supervising doctoral theses. Participation in and organisation of national and international conferences. Project management. Developed methodological and teaching tools, monographs and scientific articles and publications.

**Aldis Čevērs**, Ph.D., RTU FEEM acting dean. Assistant professor of the Department of Customs and Taxes. Member of RTU Senate. In 2021, he obtained a Doctor of Science degree in the field of Political Science. He holds a Master's degree in Law from 2002. He has worked in higher education institutions (University of Latvia, Riga Technical University), private sector and public administration (General Customs Board of the State Revenue Service). He has more than 30 years of academic experience. Main research areas - customs functions and their implementation, organisation and evaluation of customs work, legal regulation of customs affairs. Three textbooks have been written, and several scientific articles have been published, including some indexed in SCOPUS. He has prepared and taught courses in Customs Law, International Trade Law, Private International Law, European Law, Administrative Law. A.Čevērs has lectured on customs law issues at foreign universities in Ukraine, Belarus, Russia, Uzbekistan, has participated in training of entrepreneurs and state administration employees, has provided opinions on customs issues to entrepreneurs and judicial authorities. Continuing professional development has been achieved through participation in various seminars and conferences, both at national and international level, in the field of customs and related matters. Participation in various international projects as a customs expert, and since 2019 has been a member of the EC Customs Training Programme Certification Assessment Board.

**Māris Jurušs**, Dr.oec., RTU associated professor. Extensive professional experience in tax sphere. Has worked for several years in the Tax Policy Department of the Ministry of Finance, has gained experience in an international audit firm, and has worked in numerous projects and working groups on tax and customs issues. Author of two books (Taxes, 2019; Tax Planning in Latvia and

Internationally, 2021). Māris Jurušs has participated in several international research projects and is the author of several publications included in international academic databases. Māris Jurušs is an expert at Latvian Council of Science. Has improved his qualifications by taking part in a number of refresher courses. For example, Competence-based learning in higher education: challenges and solutions (2020); Developing research competence: attitudes and ethics of academic and scientific staff, research design and management (2021); Virtual processes, digitalisation, online personality, online communication and the psychology of cyber-health (2022). Regularly participates in Academic Conferences organised by IEVF and in recent years has chaired subsections of the conference where he and his colleagues discussed topical issues and opportunities for improving the study process. Māris Jurušs regularly participates in ERASMUS+ teaching visits abroad. In 2016-2022, has given several guest lectures at the Münster University of Applied Sciences, Bruno Technical University, Tallinn Security Academy. The experience gained helps to achieve better study results. The improved qualification allows for a more professional organisation of the study process, teaching students to carry out independent research for the Master's thesis. The research and publications are used as sources for teaching material in the courses. For example, the book "Tax Planning in Latvia and the International Environment" (2021) is one of the main sources for the study course "Tax Planning". This allows the use of the flipped classroom principle in the study process, with in-person discussions, seminars and workshops.

**Justīna Hudenko**, Dr.oec., RTU docent. She holds a PhD in Economics from the Faculty of Engineering, Economics and Management, Riga Technical University. She is an expert of the Latvian Council of Science in the field of economics and entrepreneurship, author of more than 200 scientific publications in the field of finance and transport, including two books. Since 2016, she has been working for the Latvian railway infrastructure charging and capacity distribution company AS LatRailNet as the Chairperson of the Board and represents the Latvian railway sector in several important international organisations: International working groups of railway infrastructure charge setters - CHRISTINE, PRIME (the Platform of Rail Infrastructure Managers in Europe), North Sea - Baltic Rail Freight Corridor. J. Hudenko holds a certificate of Professional Board Member of the Baltic Institute of Corporate Governance (BICG).

**Maija Šenfelde**, Dr.oec., RTU professor. Long-term teaching and administrative experience in a university. Expert of the Latvian Council of Science, author of four editions of the textbook "Macroeconomics", as well as author of several scientific monographs in the field of economics. Active participation in scientific conferences, courses and seminars. Participates in the Bank of Latvia's annual Economic Conferences, as well as in "Expert Talks". She has led and participated in various projects. The accumulated experience and continuous self-improvement ensure the ability of the teaching staff to provide students with the necessary theoretical knowledge, as well as to provide students with information on current problems in the economy, national economy, international economy and their possible solutions, which, undeniably, develops students' ability to assess economic, social and political processes in the world and their impact on the Latvian economy.

**Jānis Ieviņš**, Dr.oec., RTU professor. Many years of academic, scientific and administrative experience at university. Participation in and organisation of several international scientific projects. Since 1994 participates as an expert in the Employers' Confederation of Latvia, since 2015 member of the RTU Council of Professors of Environmental Science, member of the RTU Senate. Supervising doctoral theses. Active participation in national and international courses, such as Nord+ in Sweden. Increasing knowledge about the latest achievements in the field by participating in seminars, professional and scientific conferences allows to improve the quality of taught study courses, as well as developing and improving the level of students' knowledge in conducting research and analysing the results.

**Ilze Judrupa**, Dr.oec., RTU associated professor. International project expert and researcher. Author of several scientific publications on regional competitiveness, quality of life assessment, smart specialisation of countries and regions, teleworking. In 2018 the monograph by Judrupa, I., Šenfelde, M. Assessing the Competitiveness of Latvian Regions was published. Riga: RTU publishing house. The research and information gathered for the publications are developed in the courses and complement the theoretical material with practical examples of regional development and competitiveness assessment methods, which in turn contribute to students' ability to understand economic development factors at both national and international levels, facilitating the ability to perform economic calculations related to sustainable development and competitiveness assessment.

**Jeļena Pundure**, Dr.oec., RTU associated professor. Scientific and administrative experience. Since 2011 Deputy Director of RTU IEVF Institute of Labour and Civil Defense. Active participation in qualification improvement seminars, projects, courses and publications, students acquire both research base and up-to-date information in accordance with the Cabinet of Ministers Regulation No 716 "Minimum Requirements for the Content of the Compulsory Civil Defense Course and Civil Defense Training for Employees". Author and co-author of several scientific publications.

**Natalja Budkina**, Dr.math., RTU associated professor. Member of the RTU DIFT Council, RTU DITF LMI Council, Scientific Secretary. Senior researcher at the University of Latvia. Participation in national and international conferences. Professional qualification improvement courses. Has worked out several publications and scientific articles. Participation in national and international conferences. Active participation in national and international courses, such as Network FinEng/2017. To improve qualification, participation in courses and seminars on the latest developments in the field allows to improve the quality of taught study courses, as well as developing and improving the level of students' knowledge in conducting research and analysing the results.

**Ingūna Jurgelāne-Kaldava**, Dr.oec., RTU associated professor. Member of the IEVF Council, Head of the SESTEL Department, researcher and leader of several international projects. Research competence in the work with students is ensured both by participation in scientific conferences and the development of publications in internationally recognized collections of articles; various research methods are used in the development of publications, which allow students to analyse the current information under study and make the necessary calculations. Author and co-author of various textbooks, such as "Economic Statistics".

**Astra Auziņa-Emsiņa**, Dr.oec., RTU docent. 15 years' academic experience in higher education institution. Scientific activity and research has also been carried out for more than 15 years, specialising in economic and sectoral analysis, international economics, foreign trade, competitiveness and productivity modelling, assessment of inter-sectoral linkages, development of macroeconomic, macroeconometric and multisectoral models, as evidenced by participation in scientific projects and research programmes, participation in international scientific conferences and publications. Expert of the Latvian Council of Science. Elected member of the Expert Commission on Social Sciences of the Latvian Council of Science. Participation in industry associations - Member of the Board of the Latvian Econometricians Association, Member of the International Input-Output Association, Member of the INFORUM Modelling Group, Founder and Senior Member of the Latvian Young Scientists Association (LJZA), etc. The study process integrates methods and solutions of economic and sectoral analysis and modelling, promotes the development of practical models, modelling of macroeconomic processes, scenario development, forecasting. The study process integrates the latest and most up-to-date scientific research and its results, as well as current developments in other countries.

**Gunārs Ozolzīle**, Dr.sc.soc., RTU associated professor. Professional experience in sociology, political science and the Latvian political science system. Work experience at the University of Latvia, Latvian Academy of Sports Pedagogy, Latvian Police Academy, College of Business Administration and Institute of Social Technologies. Researcher at market and public opinion research firm SIA Baltic Study Centre (2018). Research links with students are also ensured by scientific research work at the Latvian Council of Science, the Ministry of Defence and EU-funded projects, participation in conferences and development of scientific publications. His research activity is mainly related to the stability and efficiency of the Latvian political system, as well as to the possibilities of reforming certain political institutions. This research orientation allows to improve the quality of the study courses and to ensure a link with the political processes taking place in the country.

**Larisa Iljinska**, Dr.philol., RTU professor. Author and co-author of several methodological tools, textbooks and scientific publications. Expert of the Latvian Council of Science in the field Humanities and Arts - Linguistics and Literary Studies (Comparative Linguistics). Participation in national and international conferences, international projects. Professional qualification improvement courses. The professional qualification meets the conditions for the implementation of the study programme and the requirements of the regulatory enactments, ensuring the achievement of the objectives and study outcomes of the study programme course "German".

**Ieva Andersone**, Dr.oec., RTU docent. Teaching experience since 2001. Research competence in the work with students is ensured by participation in scientific conferences and publications both nationally and internationally. RTU pedagogical qualification improvement courses and participation in IEVF academic conference on integration of methodological and scientific work in the study process. In addition, participation in various seminars ensures familiarity with the latest trends, encouraging the learning of new techniques that allow students to stay up-to-date with the industry. Study course "Innovative Product Development and Entrepreneurship".

**Nadežda Semjonova**, Dr.oec., RTU senior researcher. Expert in public and municipal finance. Research papers and scientific articles. Participation in national and international conferences. Participation in a postdoctoral research support project, which provides the opportunity to collaborate with other European universities and the Latvian Medical Device Manufacturers and Service Association. The seminars organised shall ensure the relevance of the qualification in accordance with the conditions for the implementation of the study programme and the requirements of the regulatory enactments. Author of several scientific publications and a monograph. Study course "Audit and Auditing".

**Leonards Budņiks**, Mg.oec., RTU docent (practical). Microsoft certified Excel expert. Study courses - Business Data Analysis Technology I, Business Data Analysis Technology II. Develops data processing tools in Ms Excel and Power Bi. Participation in IT conferences and forums, online courses and seminars, and an in-depth interest in the impact of information technology on society and the economy, provide students with knowledge of the principles of managing newly introduced information technologies and information systems, covering data concepts and exploring the social implications of IT developments.

**Zane Senko**, Mg.paed., RTU lecturer and researcher - type of research: national research programme. Has developed a methodological tool and a textbook. Participation in scientific conferences at both national and international level. Several publications in specialised journals. Participation in the ERASMU mobility programme for academic staff. The professional qualification meets the conditions for the implementation of the study programme and the requirements of the regulatory enactments, ensuring the achievement of the objectives and study outcomes of the study programme course "English".

**Aivars Gulbis**, Mg.oec., practical docent. Professional experience in business and public administration, 21 years in academic and scientific research work, 26 years as a lecturer at a higher education institution. His education and work experience in customs since 1990 provide a good basis for academic work and research. Since 1996 he has been actively involved in professional associations related to transit and movement of goods (Executive Director of the Latvian Customs Warehouse Keepers Association, Executive Director and President of the Latvian National Freight Forwarders and Logistics Association), which enables him to identify and synchronise the interests and requirements of government and business by incorporating them into academic research processes. A.Gulbis is the co-author of the only Latvian-language customs textbook in Latvia "The Basics of Customs Operations", published in 2006 and reprinted five times due to its popularity. Regular participation in international scientific and professional conferences, guest lectures at professional customs training institutions (academies, colleges, closed training centres) in various countries and involvement in international projects (BOMCA, INCU), which generally contribute to the development of professional competences and help students to achieve the set study results. Acting as an expert in the review of the compliance of four higher education institutions of the World Customs Organisation (WCO) Member States' customs training programmes with the requirements of the WCO Standards for the Customs Profession. As of 2011, has supervised 298 and reviewed 280 final theses at various levels.

**Normunds Rudzītis**, Mg.sc.ing., Mg.oec., RTU docent (practical). 28 years of professional experience in business and public administration, 10 years in academic and scientific research work at a higher education institution. Acquired education and work experience provide a good basis for academic work and research in the field of border management. Key research areas include risk management, supply chain security, integrated border management and anti-corruption. Regular participation in international scientific and professional conferences and projects (BOMCA, USAID, TAIEX) ensures the development of professional competences, as well as facilitates students' achievement of the set study results.

**Daira Aramina** holds a Professional Master's degree in Business and Institutional Management with qualification in Business and Institutional Management, as well as a Bachelor's degree in Social Sciences in Psychology and a Diploma Certificate in Personnel Management Psychology from the Riga School of Pedagogy and Educational Leadership, Faculty of Psychology. 25 years of experience in the field of higher education at RTU: employment relations, staff competence, staff development, staff development, job evaluation, career planning, control of working conditions, social guarantees, work motivation, commitment. Daira Aramina has professional competences in human resource management in large organisations and human psychology, as well as in issues related to human capital and competence development. Daira Aramina is a representative of RTU Faculty of Engineering Economics and Management in the Latvian Personnel Management Association.

Successful cooperation with professionals from the public and private sectors has been established to organise and ensure a full-fledged study process. They are, for example, Deputy Directors General of the State Revenue Service in the field of taxation and customs, Deputy Directors of the Customs Administration, Deputy Directors of the Tax Administration, Deputy Director of the Direct Tax Department of the Ministry of Finance, Head of the Tax Risk Assessment Unit of the Tax Promotion Department of the Legal Entities, investigator of the Corruption Prevention and Combating Bureau (KNAB), Board Member of the Latvian Tax Consultants Association, Director General of the Latvian National Freight Forwarders and Logistics Association, Head of the HR Department at RTU, etc.

Leading industry specialists and representatives of the business environment participate in the educational process: they conduct study courses, give lectures, supervise and review final theses, participate in the work of the national examination committee, provide internships for students,



participate in joint research with RTU academic staff, which was also reflected in published scientific articles, participation in conferences and international projects, such as the Border Management Project in Central Asia ([BOMCA](#)). Quality participation in the learning process is ensured by cooperation agreements with major employers of programme graduates.

#### **3.4.2. 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 implementation of the Professional Bachelor study programme "Administration of Customs and Taxes" involves both RTU teaching staff and highly qualified specialists with relevant education and work experience. Often, in order to ensure the teaching process and improve the quality of teaching, the programme has to change the teaching staff, both due to the retirement of experienced teaching staff and the recruitment of new highly qualified specialists, including those with practical work experience. It should be noted that the existing teaching staff regularly carry out professional development by participating in mobility, conferences, projects, seminars, courses at both national and international level, providing students with continuous improvement of study courses, updating the content and applying new teaching methods in line with the principles and requirements of education. This also provides the opportunity to replace each other and to transfer knowledge and experience. During the reporting period, one lecturer has obtained a Ph.D. degree, thus introducing scientific knowledge and the latest achievements in the field of customs into the study process, promoting the use of research methods and conducting in-depth research in the study process. During the reporting period, two lecturers were elected as associate professors, strengthening the capacity of the study programme.

29 RTU academic staff members participate in the process of implementation of the study programme for 2022/2023, 65% of them with PhD degrees. (*see [Annex\\_Teaching Staff](#)*).

RTU academic staff with doctoral degrees, professors, associate professors and docents, as well as specialists in the field, are increasingly involved in improving the quality of the study process. However, it should be noted that there have been no significant changes in the total number of academic staff, except for the 2016/2017 academic year, which can be explained by the retirement age, parental leave, as well as a change in the field of activity of specialists. There is a 33% drop in the number of elected professors between the 2013/2014 and 2021/2022 academic years, largely due to the retirement age. At the same time, the number of associate professors and docents (with PhD degrees) has increased during the reporting period, which definitely has a positive impact on the quality of study courses.

When studying the age structure of academic staff, it can be concluded that the number of lecturers in the age group 31-40 has decreased, but a positive trend can be observed in the age group 41-50, which accounts for 40% of the total number of lecturers. Doctoral students are also involved in the implementation of the study programme.

In any case, changes in the composition of the teaching staff do not reduce the quality of studies. The study process is increasingly involving the best specialists with a high level of expertise. The next generation of academics is attracted, and the best students are involved in research, leading them to future academic and scientific careers. When planning the study process, thought is given to the possibility of replacing teaching staff if necessary.

**3.4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of 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 or peer-reviewed monographs may be additionally specified. Information on the teaching staff included in the database of experts of the Latvian Council of Science in the relevant field of science (total number, name of the lecturer, field of science in which the teaching staff has the status of an expert and expiration date of the Latvian Council of Science expert) (if applicable).**

**3.4.4. 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).**

**3.4.5. 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 programme and 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 includes a variety of study blocks covering both general and professional competences. Each year, each course of study is developed and updated with new teaching methods and economic trends, while meeting higher education quality standards. Several teaching staff members regularly participate in the process of developing a full course of study, including leading experts in the field.

The teaching staff members involved in the programme collaborate within their courses to ensure that the courses are linked. For example, the courses "Customs Processes and Procedures" and "Customs Law" as a whole provide an understanding of the scope of customs activities, customs functions and the legislation adopted to support them. The study courses "Risk Management of Customs" and "Customs Control Technology and Devices" only provide students with the necessary knowledge and skills in the field of customs control. The applied game involves teaching staff members whose main activities are related to Customs Law, Customs Risk Management, Customs Control, Customs Duties and Transport, Tax Administration, Financial Calculations etc.

Great attention is paid to ensuring the interconnectedness of study courses. This is taken into account when planning the sequence of courses. In the field of customs, first courses are taught to provide a general understanding of customs matters, then courses on the legal framework of customs matters, and only then specific customs subjects, where students acquire knowledge and

skills that are already useful in practice. The study programme is also planned in such a way that the next course of study builds on the knowledge acquired in the previous one. In this way, it is possible to link study courses that deal with elements of customs matters that are actually interrelated, such as customs control, customs risk management, customs information systems, control of restricted and prohibited goods, liability in customs matters.

Study projects are developed on the basis of the theoretical knowledge acquired in various study courses. The topics of the study projects are determined on the basis of recommendations from lecturers or employers, thus involving all lecturers in addressing topical issues. The organisation of a study project involves a number of teaching staff, resulting in both cooperation with students and mutual cooperation in managing the respective study projects. The skills acquired are also useful for students working on their final thesis.

Teaching staff participate in joint mobility activities, for example, in 2018 associate professor Māris Jurušs and docent Aldis Čevers visited the Estonian Security Academy in Tallinn as part of an international security project (CEPOL), in 2020 docent Aldis Čevers, pr. docent Aivars Gulbis, pr. docent Normunds Rudzītis and associate professor Māris Jurušs visited Narva, Estonia for a mobility visit to learn about the integrated border control process at the Estonia-Russia border.

For several years now, the faculty of the Department of Customs and Taxation has been involved in the BOMCA project, which combines the skills of several faculty members. Practical docent N.Rudzītis has participated in the project events together with the leading specialists of the SRS Customs Administration (e.g. Deputy Director of the National Customs Board), who is also a guest lecturer of the programme. Docent A.Čevers and pr. docent A.Gulbis participated in the evaluation and development of the study programme in accordance with the WCO professional standards at the Uzbekistan Customs Institute in Tashkent and "Al-Farabi" National University of Kazakhstan in Astana.

In 2022 A.Gulbis and A.Čevers jointly participated in the European Social Fund project "Strengthening of Riga Technical University academic staff in areas of strategic specialisation", where they gained new knowledge about the organisation and control of railway transport during their internship in the company "LDzCargo" Ltd.

There is significant collaboration between the faculty members of the Department in scientific activities and research. Students' scientific activities are jointly organised, scientific conferences are attended and scientific publications are written. In the field of taxation, there is an active cooperation between associate professor M.Jurušs and docent J.Hudenko, in the field of customs - Dr.oec. A.Krastiņš, docent A.Čevers, pr. docent N.Rudzītis, pr. docent A.Gulbis.

A number of mechanisms are in place to foster faculty staff collaboration in the implementation of the study programme. In the meetings of the Department, the faculty staff members regularly exchange their knowledge and experience on topical issues, discuss the results of study courses and final theses, discuss the results of student, graduate and employer questionnaires, as well as regularly organise internal qualification improvement seminars. Teaching staff also regularly participate in joint RTU qualification improvement courses.

Having evaluated the ratio of students to elected academic staff in 2022/2023, it has to be concluded that it is 1:7. With the involvement of leading experts in the field, there are actually five students per teaching staff member.

# Annexes

III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme	Diploma_Diploma_Supplement_.pdf	Diploms_Diploma_pielikums_.pdf
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (table) (if applicable)		
Statistics on the students in the reporting period	Annex 5_Statistical Data of Students.pdf	5.pielikums_Statistikas dati par studejošiem.pdf
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard	Annex6_Compliance with the national education standard_.pdf	6.pielikums_Studiju_programmas_atbilstiba_.pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (if applicable)	Annex 7_Compliance of the Bachelor programme for professional standart_.pdf	7.pielikums_Kvalifikaciju atbilstiba profesiju standartam_.pdf
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	Annex_Compliance of the Professional Bachelor study programme with the sector-specific regulatory framework_.pdf	Pielikums_Atbitiba nozares specifiskajam normativajam regulējumam_.pdf
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Annex 8_Mapping of Study Courses_.pdf	8.pielikums_Studiju kursu kartējums_.pdf
The curriculum of the study programme (for each type and form of the implementation of the study programme)	9_pielikums_RICM0_semestru_plans-Annex_9_Plans_of Study_semestrers (1).pdf	9_pielikums_RICM0_semestru_plans-Annex_9_Plans_of Study_semestrers (1).pdf
Descriptions of the study courses/ modules	Annex 10_Study_Courses_.pdf	10.pielikums_Studiju_kursi (4).pdf
Description of the organisation of the internship of the students (if applicable)	Internship_Management_Procedure (1).pdf	Prakses_organizšanas_kartiba (2).pdf
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		
Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		

# Administration of Customs and Taxes (47861)

Study field	<i>Internal Security and Civil Protection</i>
ProcedureStudyProgram.Name	<i>Administration of Customs and Taxes</i>
Education classification code	<i>47861</i>
Type of the study programme	<i>Professional master study programme</i>
Name of the study programme director	<i>Māris</i>
Surname of the study programme director	<i>Jurušs</i>
E-mail of the study programme director	<i>Maris.Juruss@rtu.lv</i>
Title of the study programme director	<i>Dr.oec.</i>
Phone of the study programme director	<i>29286119</i>
Goal of the study programme	<i>The aim of the master professional study programme "Administration of Customs and Taxes" is to provide higher professional education in the areas of customs and taxes, to enable graduates to occupy relevant job positions at the senior and middle management in the field of customs and taxes in the organisations or companies as well as build the career in research or carry out pedagogical work.</i>
Tasks of the study programme	<ul style="list-style-type: none"> <li><i>- to ensure the acquisition of broad knowledge and professional and practically oriented skills allowing graduates to easily adapt to the labour market, as well as to conduct research or continue their education at the doctoral level;</i></li> <li><i>- to provide the students with theoretical and practical training appropriate for the fifth level professional qualification enabling them to obtain the qualification of the manager of customs and tax administration;</i></li> <li><i>- to create an opportunity for the students to obtain the qualification in close connection with their future job and ensure such opportunities for acquisition of theoretical knowledge and skills that will allow the graduates of the study programme to commence professional activities and perform the duties of the manager of customs and tax administration;</i></li> <li><i>- to ensure the acquisition of up-to-date general knowledge, to develop economic thinking and analytical abilities and skills required for solving professional problems and tasks assigned and for developing projects that will allow graduates to participate in tackling branch-related problems;</i></li> <li><i>- to develop team-building and cooperation skills with professionals representing 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	<ul style="list-style-type: none"> <li>- is able to analyse the customs and tax administration process, understands current customs, taxes and business development trends, and is able to assess the impact of customs and tax policies, regulations and decisions taken on international business, the market, entrepreneurship, social processes and the environment;</li> <li>- be able to collect and analyse information, use appropriate research methods and technical means, identify and solve problems related to customs and tax administration, perform tax analysis and forecasts;</li> <li>- be able to plan the process of customs and tax administration in accordance with the interests of the economic security of the country, and, synthesizing the acquired knowledge, develop proposals for the development of customs and tax administration;</li> <li>- be able to take decisions, in accordance with administrative and criminal law in the field of customs and taxation, to apply European Union and international customs and tax law, as well as to apply tax incentives, special regimes and other tax planning methods;</li> <li>- be able to coordinate the customs and tax administration process, assessing its effectiveness, and implement the strategic management of customs and tax administration;</li> <li>- Able to organize the process of customs and tax administration, advise on customs and tax issues, manage tax planning opportunities, as well as coordinate customs and tax control.</li> </ul>
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 in Social Sciences in economics, business and administration, political science, legal science or comparable education
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	Professional Master's Degree in Administration of Customs and Taxes
Qualification to be obtained (in english)	Manager in Customs and Tax Administration

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### Part time extramural studies - 2 years, 6 months - latvian

Study type and form	Part time extramural studies
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Duration in full years	2
Duration in month	6
Language	latvian
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor Degree in Social Sciences in economics, business and administration, political science, legal 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's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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	english
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree in social sciences in economics, business and administration, political science, legal science or comparable education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

#### Part time extramural studies - 2 years, 6 months - english

Study type and form	<i>Part time extramural studies</i>
Duration in full years	2
Duration in month	6
Language	english
Amount (CP)	80
Admission requirements (in English)	<i>Bachelor degree in social sciences in economics, business and administration, political science, legal science or comparable education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

#### 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 or first-cycle professional higher education in the fields of economics, business and administration, political science, legal science, engineering and technology, production and processing or construction.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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 first-cycle professional higher education in the fields of economics, business and administration, political science, legal science, engineering and technology, production and processing or construction, and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

#### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

#### Part time extramural studies - 2 years - latvian

Study type and form	<i>Part time extramural 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 or first-cycle professional higher education in the fields of economics, business and administration, political science, legal science, engineering and technology, production and processing or construction</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### Part time extramural studies - 2 years - english

Study type and form	<i>Part time extramural studies</i>
Duration in full years	<i>2</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>60</i>
Admission requirements (in English)	<i>Professional bachelor degree or first-cycle professional higher education in the fields of economics, business and administration, political science, legal science, engineering and technology, production and processing or construction, and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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 Administration of Customs and Taxes or comparable education.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

### Places of implementation

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

**Full time studies - 1 years - english**

Study type and form	<i>Full time studies</i>
Duration in full years	<i>1</i>
Duration in month	<i>0</i>
Language	<i>english</i>
Amount (CP)	<i>40</i>
Admission requirements (in English)	<i>Professional Bachelor Degree in Administration of Customs and Taxes or comparable education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, 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 Administration of Customs and Taxes or comparable education.</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

**Part time extramural studies - 1 years, 6 months - english**

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>english</i>
Amount (CP)	<i>40</i>
Admission requirements (in English)	<i>Professional bachelor degree in administration of customs and taxes or comparable education and knowledge of the English language at least at B2 level</i>
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	<i>Professional Master's Degree in Administration of Customs and Taxes</i>
Qualification to be obtained (in english)	<i>Manager in Customs and Tax Administration</i>

**Places of implementation**

Place name	City	Address
Riga Technical University	RĪGA	KALŅU IELA 1, CENTRA RAJONS, RĪGA, LV-1050

### **3.1. Indicators Describing the Study Programme**

#### **3.1.1. Description and analysis of changes in the parameters of the study programme made since the issuance of the previous accreditation form of the study field or issuance of the study programme license, if the study programme is not included on the accreditation form of the study field, including changes planned within the evaluation procedure of the study field evaluation procedure.**

In accordance with the changes in the Cabinet of Ministers Regulation No 512 of 26 August 2014 "Regulations on the State Standard of the Second Level Professional Higher Education", in the academic year 2015/2016 the Professional Master's study programme "Administration of Customs and Taxes" was supplemented and updated. Based on labour market research and consultations with employers and practitioners, a new study option was created - for students with a previously acquired Professional Bachelor's degree in Administration of Customs and Taxes and/or a sixth-level professional qualification in Administration of Customs and Taxes, in accordance with the decision of the Study Accreditation Commission No 23-A of 25.08.2016.

Thus, the programme has different admission requirements and study duration (Option 1 (60 ECTS / 40 CP); Option 2 (120 ECTS / 80 CP); Option 3 (80 ECTS / 60 CP)).

The study programme "Administration of Customs and Taxes" develops professional, creative and research skills for work in the field of customs and taxation and prepares professionals who implement customs and tax administration management.

The study programme "Administration of Customs and Taxes" was developed in cooperation with the World Customs Organisation (WCO) and was the first in the world to be recognised as compliant with the WCO International Occupational Standards for *Operational Managers/Leaders* and *Strategic Managers/Leaders*, for which a certificate was awarded.

The study programme has also been awarded a Certificate of Recognition by the European Commission (EC) for compliance with the European Union (EU) Customs Competences. The Certificate of Recognition is awarded as a mark of excellence for high-quality, modern customs study programmes, certifying that they equip students with the EC's customs competences for work in both the public and private sectors in the EU.

The study programme is designed in cooperation with representatives of the State Revenue Service (SRS) tax and customs authorities so that students acquire in-depth knowledge of the activities of these authorities and are able to apply it in practice, as well as be competent to independently analyse information, make decisions and demonstrate an understanding of professional ethics.

The Professional Master's study programme "Administration of Customs and Taxes" is unique in Latvia and there are only a few similar programmes in the European Union (EU) international education space.

The study programme has been highly ranked in the international ranking "*Eduniversal Best Masters Ranking*", where the study programme is ranked 29th in the world among the TOP 100 programmes in the field of tax administration.

#### **3.1.2. Analysis and assessment of the study programme compliance with the study field.**

**Analysis of the interrelation between the code of the study programme, the degree, professional qualification/professional qualification requirements or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements. Description of the duration and scope of the implementation of the study programme (including different options of the study programme implementation) and evaluation of its usefulness.**

The study programme is fully in line with the study field "Internal Security and Civil Protection" and its objectives and sub-objectives: to provide students with a sustainable multi-level education in areas such as border security, economic security, security of economic entities, providing a set of knowledge and skills in customs and tax administration. Accordingly, the programme aims to provide higher professional education in customs and taxation, as well as to develop research skills to prepare middle- and senior-level managers and professionals to manage customs and tax administration.

In accordance with the Cabinet of Ministers Regulation No. 322 of 13 June 2017 "Regulations Regarding the Classification of Education in Latvia", the code of the study programme is 861 09, Customs and Tax Administration, which corresponds to the field of study and the field of internal security, thus the qualification to be obtained is also appropriate.

The Professional Master's study programme "Administration of Customs and Taxes" is unique in Latvia and there are only a few similar programmes in the international education space in the European Union, so the competitiveness of its graduates is very high. Along with the Professional Master's Diploma, graduates also obtain the World Customs Organisation (WCO) Certificate and the European Commission (EC) Certificate of Compliance with the European Union Customs Competences, which certifies that their competences meet the WCO and EC international standards.

The study programme "Administration of Customs and Taxes" specialises in customs and tax administration. The Professional Master's study programme "Administration of Customs and Taxes" focuses on management skills in customs and tax administration. The Customs and Tax Administration Manager analyses current customs and international business trends, analyses national economic and international security aspects and solves problems related to customs and tax administration, implements strategic management of customs and tax administration, conducts tax analysis and forecasts, manages tax planning options, and organises the customs and tax administration process. The learning outcomes of the study programme "Administration of Customs and Taxes" meet the requirements of the Administration of Customs and Tax Manager standard.

The knowledge, skills and competences acquired in the study programme correspond to the seventh level of the Latvian Qualifications Framework (LQF 7), which is defined in the Administration of Customs and Tax Manager's Standard. The development of skills and competences included in the study programme is directly related to the deepening of the capacity of the Administration of Customs and Tax Manager: the ability to assess the security situation in the country, the ability to take decisions on issues of national economic and international security, the ability to analyse current trends in administration of customs and tax, the ability to develop proposals for improving administration of customs and tax and strengthening control and supervision, as well as other important competences in the field of administration of customs and tax.

The study programme is fully compliant with the requirements of the WCO Professional Standard as

well as the EC Customs and Tax Competences ( CustCompEU , TaxCompEU ) Framework.

The assessment of the relevance of the Professional Master's study programme "Administration of Customs and Taxes" to the professional standard for the Administration of Customs and Tax Manager can be found in *Annex 7\_Compliance with the professional standart*.

The programme has different admission requirements and study durations:

### **Option 1**

- scope in credit points: 60 ECTS / 40 CP;
- duration of studies in years: Full-time in-person - one year; Part-time extramural - one year and 6 months;
- Degree and qualification: Professional Master's degree in customs and tax administration / qualification as Manager in Customs and Tax Administration;
- admission requirements: Professional Bachelor's degree in customs and tax administration or equivalent 4 years professional education.

### **Option 2**

- scope in credit points: 120 ECTS / 80 CP;
- duration of studies in years: Full-time - 2 year; Part-time - 2 years and 6 months;
- Degree and qualification: Professional Master's degree in customs and tax administration / qualification as Manager in Administration of Customs and Tax;
- admission requirements: a Bachelor's degree in Social Sciences or equivalent.

### **Option 3**

- scope in credit points: 80 ECTS / 60 CP;
- duration of studies in years: Full-time in-person - one year; Part-time extramural - 2 years;
- Degree and qualification: Professional Master's degree in administration of customs and tax/ qualification as Manager in Administration of Customs and Tax;
- admission requirements: a Professional Bachelor's degree and/or a level 2 vocational higher education qualification in economics, management and administration, law, engineering and technology, manufacturing and processing or construction.

The study programme is open to students with a previous Bachelor's or Master's degree in management, economics and administration and a professional higher education in law, engineering and technology, manufacturing and processing or equivalent, as well as to people with a previous Bachelor's degree in social sciences or equivalent and a Bachelor's degree in law and engineering or equivalent. Thus, people whose previous education was not directly related to the field of administration of customs and tax can acquire and develop the knowledge, skills and competences of administration of customs and tax manager, thus contributing to their self-development and providing new opportunities for career development and planning.

The duration of study for the study programme options is based on the study content. In option 1 (60 ECTS / 40 CP) professional study courses corresponding to the master's level education standard and profession standard are acquired, but they have already acquired part of the professional study courses at the bachelor's level, therefore the duration of studies is one year. In contrast, options 2 and 3 require the completion of several additional professional study courses, so the duration of studies is different. Due to the large popularity of the study program, the division of the study program into three options allows to effectively organize the study process. As shown by the number of students by options, the majority are students in option 1, i.e. those who continue their studies after bachelor's level studies in the customs and tax administration program. At the same time, it is necessary to create opportunities for graduates of other programs to study in this

program, therefore, the study content is adapted depending on what students has studied at the previous level and what competencies they still need to acquire.

The Professional Master's Degree in Administration of Customs and Taxes is open to students whose previous academic bachelor's and professional bachelor's education was not related to the thematic areas of administration of customs or tax, or equivalent education, by completing study courses that provide the knowledge, skills and competences required for the qualification.

Practical experience is provided by an internship in customs and tax administration within the programme of 8 ECTS /6 CP (or 39 ECTS / 26 CP in Option 2). Students gain practical experience at the placement site by completing internship tasks in collaboration with a internship supervisor from the organisation and the university coordinator.

The duration of studies in Option 3 (80 ECTS / 60 CP) is one year and 6 months, which also ensures compliance with the Cabinet of Ministers Regulation No.322. Upon successful completion of the Master's programme, students with a prior Academic Bachelor's degree and a Professional Bachelor's degree and/or a Level 2 professional higher education qualification in law, engineering and technology, manufacturing and processing or construction, or equivalent, shall also be qualified as administration of customs and tax manager.

Alignment of the Master's degree in Administration of Customs and Taxes to the equivalent Master's degree in Sweden.

### **3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.**

The study programme is economically viable, although public funding is lacking. Administration of Customs and tax is a strategic area for the country, but it is not properly valued at national level.

The analysis of graduate employability shows a very high, positive result. For example, 95% of 2017 graduates were employed, 87% of them in higher-level occupations (according to the Classification of professions: Managers, Senior Specialists, Specialists), and as many as 97% in higher-level occupations 3 years after graduation. The median income of 2017 graduates was 16 thousand EUR, while in the third year it reached 20.6 thousand EUR. Similar trends were observed for other recent graduates. Of the 2018 graduates, 94% were employed, 74% in the first year and 75% in higher-level occupations in the second year. The average income for 2018 graduates was 19.2 thousand, while in the following year, it was 20.2 thousand. And 97% of 2019 graduates are employed, 82% of them in higher-level occupations. The median income of 2020 graduates was 17 thousand EUR. Most are employed in public administration and professional services.

As the study programme is one of the most popular at RTU and in Latvia, students have no problem finding a job after graduation. Unfortunately, the State Revenue Service and other competent authorities are short-staffed and graduates from the programme are very welcome to work for them. Graduates often choose to pursue careers in the private sector because of insufficiently competitive salaries. Graduates of the programme are highly sought-after by international audit firms, and some graduates go on to work for multinational companies abroad, for example, one graduate who completed the programme with distinction in 2018 has been working in Deloitte's London office for several years.

Graduate surveys show that almost all students were already employed, most of them in a field related to their studies (**see Annex to point 2.2.4.**). For example, in 2020/21, 75% of graduates were already working in the sector during their studies (e.g. part-time).

As the study programme is one of the most popular at RTU, the budget places are filled at 100% rate. The number of budget places was increased for 2021/2022, but in fact it is insufficient.

Regular publicity events are organised to attract more students (to study at their own expense).

For example, on 30 June 2020, Riga Technical University (RTU) presented online the study programme "Administration of Customs and Taxes". Aivars Vilnis Krastiņš, Director of the International Business and Customs Institute (IBCI), Raimonds Zukuls, Director of the National Customs Board of the State Revenue Service and Ēriks Gutbergs, Procurator of the logistics and warehousing services company "MMD Serviss", participated in an online conversation on RTU Facebook page to introduce bachelor and master studies, as well as career opportunities. Aivars Vilnis Krastiņš, Director of IBCI and Raimonds Zukuls, Director of the National Customs Board (SRS), regularly participate in broadcasts of Latvian public media, such as Latvian Radio. In April 2022, Māris Jurušs, Aldis Čevers and Normunds Rudzītis visited several schools in Latgale region, meeting more than 300 students and their teachers and discussing study opportunities in the "Administration of Customs and Taxes" programme.

In order to ensure the cost-effectiveness of the study programme, RTU has set the minimum number of students in each study year:

- 19 full-time domestic students at first cycle, Bachelor's and Master's levels (including second level professional study programmes);
- part-time in-person and part-time extramural domestic students at first-level, Bachelor's, Master's levels (including second level professional study programmes) - 15 students.

RTU also ensures the implementation of study programmes with a smaller number of students in those study programmes that are strategically important for both RTU and the country, as well as in new programmes in their first years of implementation, co-financing their implementation from RTU's other funds. To ensure the efficiency of study programmes with fewer students, similar study courses are implemented simultaneously for students of several study programmes (e.g. mathematics, general sociology, etc.), as well as classes are planned jointly for local and foreign students, if the specifics of the study course and the language of implementation allow, and other actions are taken that do not reduce the quality of studies.

#### **3.1.4. 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 into different study forms, types, and languages.**

Data on the number of students enrolled in the study programme, the dynamics of the number of students is shown in *Annex 5\_Statistical data on students*.

The number of full-time in-person students (total) by year in the Professional Master's study programme "Administration of Customs and Taxes" varies from 68 to 93 (see *Annex 5\_Statistical data on students*). As a result of changes to the study programme, we have enrolled more students



in the 2016/2017 academic year.

On a positive note, the ratio of students financed by the state budget has increased proportionally in recent years (see *Annex 5\_4.Distribution of the number of students by funding sources*). While in the 2013/2014 academic year only 29% of all students were state-funded, in the 2020/2021 academic year 60% of all students were state-funded.

The number of students enrolled in the programme, broken down by admission requirements, has varied over the 9-years period, but the overall trend is for the largest number of students to have previously obtained a Professional Bachelor's degree in administration of customs and tax.

Every year, the number of students and the number of graduates in option 1 has been at least half of all graduates (*Annex 5*), for example, in 2013/2014 56%, but in 2020/2021 even 80% of all graduates.

As well as the distribution of students by source of funding, the number of students by full-time and part-time mode of study is also variable (see *Annex 5\_5.Distribution of the number of students by type of studies*).

The number of graduates depends on the number of students in a given academic year and there have been no significant drop-outs (see *Annex 5\_2.Dynamics of the number of graduates*). The number of graduates decreased in the 2015/2016 academic year and in the 2020/2021 academic year, as the number of students has also been variable. The situation caused by COVID-19, where more students than usual were unable to complete their studies and final thesis on time, also had a significant impact in the 2020/2021 academic year.

The number of student dropouts from the study programme varies during the reporting period (see *Annex 5\_3.Student dropouts*). In recent years, the main reason for dropping out has been academic failure or dropping out of one's own free will. This is mainly because many students work in addition to their studies and are therefore unable to cope with studies. The situation caused by COVID-19 also contributed to this situation.

During the reporting period, the study programme was implemented in Latvian language, foreign students haven't studied so far.

### **3.1.5. Substantiation of the development of the joint study programme and description and evaluation of the choice of partner universities, including information on the development and implementation of the joint study programme (if applicable).**

## **3.2. The Content of Studies and Implementation Thereof**

### **3.2.1. Analysis of the content of the study programme. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators with the aims of the study course/ module and the aims and intended outcomes of the study programme. Assessment of the relevance of the content of the study courses/ modules and compliance with the needs of**

**the relevant industry, labour market and with the trends in science on how and whether the content of the study courses/ modules is updated in line with the development trends of the relevant industry, labour market, and science.**

The annual evaluation of the study programme in the Department of Customs and Taxes ensures that the content of the study courses in the study programme "Administration of Customs and Taxes" meets the needs of the industry, the labour market and scientific trends.

The study content of the study programme options is based on the necessary competences to be acquired. In option 1 (60 ECTS / 40 CP), professional study courses corresponding to the master's level education standard and profession standard are acquired, for example, strategic management of customs and tax administrations and other compulsory and optional study courses. In turn, option 2 (120 ECTS / 80 CP) includes additional study courses, as well as internships (30 ECTS / 20 CP) (which students have acquired at the bachelor's level in option 1). Finally, option 3 (80 ECTS / 60 CP) also includes additional study courses (acquired by students at bachelor's level in option 1).

In 2009, a cooperation agreement was concluded with the State Revenue Service to ensure that the programme is in line with industry trends in customs and tax administration. Regular and close cooperation takes place in various forms under the Agreement. The State Revenue Service provides support for internships, final theses, studies and research. For example, in 2020 a meeting was organised with competent persons from the SRS to present the results of a study on unregistered employment in Latvia. The research was carried out within the framework of a relevant study project of the course "Tax Planning (study project)".

Based on the recommendations of employers and graduates, in 2022 the study programme was improved by adding new study courses "Modern Research Methods in Customs and Taxation" and "Modern Research Methods in Customs and Taxation (study project)". Both courses were very relevant and necessary. One course of study is more theoretical and provides the necessary competences to conduct research, including the ability to define the research problem, research object, subject, goal, hypothesis, tasks. This includes topical issues for research as well as modern technologies and their applications in customs and taxation (such as big data, artificial intelligence, etc.). The second course is more practical, aiming to strengthen and develop students' skills in research, project management and teamwork.

In 2022, a new standard for the profession of Administration of Customs and Tax Manager was adopted, thus the study programme has been upgraded to a single qualification, and several study courses included in the study programme have been changed accordingly.

In line with the unified standard for the Administration of Customs and Tax Manager, the study programme no longer has two classifications, as was the case previously and therefore there are no more electives for specialisations. This has also led to changes in a number of study courses. For example, students who have not previously studied Administration of Customs and Taxes at Bachelor's level are required to take a number of additional courses on customs and taxation. In contrast, all students (Options 2 and 3) have common elective courses in line with the professional standard requirements, such as Supply Chains and Border Security.

The Professional Master's study programme "Administration of Customs and Taxes" involves studying relevant courses in customs, taxation, security, management, etc. through lectures, practical classes, laboratory work and literature studies.

Practical work and study projects are organised on topical themes. On 20 April 2020, at the 61st

RTU Students' Scientific and Technical Conference Section "Taxes and Customs", IBCI Administration of Customs and Taxes students presented the research "Prevalence of Unregistered Employment in Latvia and Opportunities to Combat it" in the presence of representatives of the Latvian Tax Consultants Association and the State Revenue Service. The study explains the reasons for, and public acceptance of, the existence of such employment in our country. The study, which was conducted by IBCI students Ieva Nagle, Ilvija Ulmane, Aleksandra Šutova and Bruno Bergmanis under the supervision of Assoc. prof. M.Juruša and assistant professor J.Hudenko, employed a quantitative research method - questionnaire. The results of the study were later specifically presented to the competent persons of the SRS at a separate meeting.

In 2021, in the study course "Tax Planning (study project)", a study on the implementation of digital tax solutions in Latvia was organised, within the framework of which students participated in focus group interviews, summarising, analysing and presenting the results. The focus group included high-level professionals from the Ministry of Finance, an audit firm and even two foreign experts. This gave the students very valuable experience in organising a focus group for their research.

The programme provides students with both general and professional knowledge of the specialty, leading to a versatile professional workforce. The study programme is designed in cooperation with representatives of the SRS and customs authorities so that students acquire comprehensive knowledge of the activities of these authorities and are able to apply it in practice.

At the end of the programme, students are required to develop a Master's thesis on a topical issue in customs management or tax administration. The Master's thesis must contain elements of scientific creativity (novelty) or innovation in practical application. It should reflect the novelty of the issues raised by the Master's student - new regularities and generalisations, previously unknown results, new methods of economic evaluation, new algorithms, models for solving economic problems, principles of classification and grouping, new applications of previously known methods, principles and models, etc., proposals for improvement of processes and procedures, etc. A number of Master's thesis topics have been recommended by the SRS. The Master's thesis is publicly defended at a meeting of the State Examination Commission. The Commission operates in accordance with the statutes approved by the Senate of the University and includes highly qualified representatives of the SRS and customs authorities, as required (representatives of the customs and tax authorities of the SRS).

For the implementation of the aim, objectives and achievable results of the study programme "Administration of Customs and Taxes", study courses are designed, the aim and objectives, achievable results and independent work organisation of which ensure their achievement, including the fulfilment of the requirements of regulatory enactments and compliance with the professional standard of a customs and tax administration manager. The link between the study programme and the outcomes to be achieved in the study courses is shown in the course mapping in *Annex 8\_ Mapping of study courses*.

The mapping of the learning outcomes of the courses in relation to the learning outcomes of the study programme leads to the following conclusions:

1) The compulsory courses (Part A) of the programme deliver all the programme outcomes:

- The study course "Tax Analysis and Forecasting" focuses on the programme outcomes such as the ability to analyse the administration of customs and tax process, understanding of current customs, tax and business development trends, the ability to assess the impact of customs and tax policies, regulations and decisions on international trade, markets, business, social processes and the environment, as well as the ability to collect and analyse information, use appropriate research methods and technical tools, identify and solve

problems related to customs and tax administration, conduct tax analysis and forecasts;

- The study course "Strategic Management of Customs and Tax Administrations" provides programme outcomes such as the ability to plan the customs and tax administration process and develop proposals for the development of customs and tax administration, the ability to coordinate the customs and tax administration process, evaluate its effectiveness, implement strategic management of customs and tax administration, and the ability to organise the customs and tax administration process and coordinate customs and tax control. This is achieved through the following course outcomes: understanding of the national and European Union development planning framework in the field of customs and tax administration and the regulatory framework for strategic management; ability to define the mission, vision and values of customs and tax administration; ability to apply analytical solutions to the internal and external environment of the organisation in customs and tax administrations; ability to define goals, objectives and performance indicators of customs and tax administrations; ability to identify critical success factors, the ability to analyse and assess strategic risks in customs and tax administrations as a basis for strategic decision-making, the ability to select strategies and determine the necessary budget for implementing strategic management decisions and ensure follow-up of decisions taken, an understanding of the nature of internal control solutions and internal audit and of change management techniques and good governance solutions in strategic management;
- The study course "Modern Research Methods in Customs and Taxation" focuses on the programme outcomes such as the ability to analyse the process of customs and taxation administration, understanding of current trends in customs, taxation and business development, as well as the ability to collect and analyse information, use appropriate research methods and technical tools, identify and solve problems related to customs and taxation administration. This is achieved through the following course outcomes: an understanding of research strategies and types, the ability to define a research problem, research object, subject, aim, hypothesis, objectives, the ability to analyse and evaluate scientific literature, evaluate the content of scientific publications and prepare a review to support their opinion, the ability to conduct qualitative and quantitative research;
- The study course "Customs Processes and Procedures" focuses on the programme outcomes such as the ability to analyse the customs and tax administration process, the ability to take decisions in accordance with administrative and criminal customs and tax law, to apply European Union and international customs and tax law, the ability to organise the customs and tax administration process, to advise on customs and tax issues, and to coordinate customs and tax control. This is achieved through the acquisition of competences, including an understanding of the functions of customs and their role in international trade and the protection of a country's internal market, knowledge of the functions, duties and rights of the state control services involved in border crossing, knowledge of the necessity and principles of operation of international conventions related to the customs field;
- The study course "Taxes and Duties" focuses on the programme outcomes such as the ability to analyse the process of customs and tax administration, the understanding of current customs, tax and business trends and the ability to assess the impact of customs and tax policies, regulations and decisions on international business, markets, entrepreneurship, social processes and the environment, as well as the ability to make decisions in accordance with administrative and criminal customs and tax law, apply European Union and international customs and tax law, and apply tax incentives, special regimes and other tax planning methods. This is achieved through the abilities acquired in the course of study: the ability to understand tax theory and tax terminology, the ability to apply the basic principles of tax law and an understanding of international tax aspects, as well as knowledge of specific taxes, their application and calculation;

- The study course "Customs Law" focuses on the programme outcomes such as the ability to take decisions in accordance with administrative and criminal law in the field of customs and taxation, to apply European Union and international customs and taxation law, as well as the ability to coordinate the customs and tax administration process, assess its effectiveness and implement strategic management of customs and tax administration. This is achieved through the course outcomes such as: the student understands the basic principles of the origin, functioning and development of customs law, recognises, is able to analyse and evaluate legal relations in customs matters, understands the customs legal system, the specificity and hierarchy of legal acts, is able to apply knowledge and skills in the correct interpretation of national and international legislation regulating customs matters;
- The study course "Modern Research Methods in Customs and Taxation (study project)" aims to provide students with a general understanding of the key concepts of analytical thinking and knowledge of how to work with commonly used analytical tools and methods in order to effectively research and investigate potential problems in customs and tax. This corresponds to the study programme outcomes: the ability to analyse the process of customs and tax administration, the understanding of current trends in customs, tax and business development, and the ability to assess the impact of customs and tax policies, regulations and decisions on international business, markets, entrepreneurship, social processes and the environment, as well as the ability to collect and analyse information, use appropriate research methods and technical tools, identify and solve problems related to customs and tax administration, conduct tax analysis and forecasts;
- The aim of the study course "Tax Planning (study project)" is to provide the student with the necessary competences for research projects in the field of tax planning. This corresponds to the programme's learning outcomes: the ability to analyse the process of customs and tax administration, an understanding of current customs, tax and business trends, and the ability to assess the impact of customs and tax policies, regulations and decisions on international business, markets, entrepreneurship, social processes and the environment.

2) The restricted elective subjects (Part B) of the programme provide all the programme outcomes, mainly focusing on the ability to coordinate the customs and tax administration process, assess its effectiveness and implement strategic management of customs and tax administration, as well as the ability to organise the customs and tax administration process, advise on customs and tax issues, manage tax planning opportunities, and coordinate customs and tax control:

- The study course "Legal Aspects of National Economic Security" focuses on the programme outcomes of identifying and solving problems related to customs and tax administration, planning the customs and tax administration process in accordance with national economic security interests, developing proposals for the development of customs and tax administration, and coordinating the customs and tax administration process. This is achieved by developing students' capacity to make decisions in line with international and regional priorities for a secure society, by providing an understanding of conflict of interest, by developing the capacity to develop anti-corruption proposals, by developing the ability to select and analyse information and by developing the capacity to carry out economic security assessments;
- The study course "Current Issues in Customs Administration" provides knowledge related to the latest trends in regional economic integration and the impact of international economic and customs-related organisations on international business;
- The study course "Tax Planning" focuses on programme outcomes such as the ability to take decisions in accordance with administrative and criminal customs and tax law, to apply European Union and international customs and tax law, to apply tax incentives, special regimes and other tax planning methods, to advise on customs and tax issues and to manage

tax planning opportunities. This is achieved by developing students' ability to develop anti-avoidance proposals, ability to critically assess situations and make decisions based on EU customs and tax law, ability to make decisions based on taxpayer's rights, ability to assess and find the most appropriate tax planning method and apply it in practice, ability to apply international tax planning methods in practice, ability to synthesise acquired knowledge to develop proposals for tax policy or administration measures to promote voluntary payment of taxes, ability to assess tax risks;

- The study course "Examination and Control of Commercial Activities" provides an overview of the role and methods of financial analysis, the organisation and methods of internal and external control of economic operators. The course covers aspects of preparation for tax control, support and information systems for tax control measures, cooperation between tax administrations and information exchange. The course covers tax control and risk management issues necessary for the strategic management of tax and customs administrations.

3) The aim of Part C of the study programme Free elective study courses is to give the possibility to choose a suitable study course for the development of professional knowledge in the field of customs and taxation (3 ECTS / 2 CP).

4) The aim of the study course "Practical Placement" (8 ECTS / 6 CP) in Part D of the study programme is to develop students' abilities to assess and analyse problems, analyse and summarise information necessary for the development and defence of a Master's thesis. The Internship (30 ECTS / 20 CP) aims to systematise, consolidate and broaden knowledge of the work of institutions, bodies and companies in the field of customs and tax administration.

5) The study course "Master Thesis" focuses on the ability to reflect knowledge of relevant special literature, economic information and other sources, the ability to collect and analyse large amounts of information using appropriate research methods and technical means, the ability to demonstrate a deep understanding of customs and tax legislation, the nature and methods of administration, the ability to use management, economic, personnel management, etc. methods and information technologies to solve a specific problem, as well as foreign experience, the ability to pose problems and propose innovations in scientific or practical application to solve problems (see *Annex 9\_Plan of the study programme*).

A detailed mapping of the other study courses and the outcomes of the study programme can be found in *Annex 8\_Mapping of study courses*.

**3.2.2. In the 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. In the 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 (if applicable).**

The study process is implemented in a student-centred approach and is based on scientific and creative achievements in the field of customs and taxation - linking scientific and research activities with the study process, as well as with final theses.

In particular, the findings (scientific publications) or monographs (textbooks and publications) produced by the faculty members in scientific activities (scientific conferences, research,

international projects) are used as teaching materials in the implementation of study courses. On this basis, students are involved in the development of study projects or research, the results of which are initially validated at student scientific conferences or even at scientific conferences, producing a scientific publication together with the research supervisors. In addition, the research can be divided into several phases, e.g. desk research on digital taxation in 2020 and field research in 2021. This allows students to develop and defend their theses in their final papers, incorporating insights from books, RTU research, projects, publications or abstracts from relevant conferences. After the final thesis is defended, the best works are invited to submit to student competitions (Bank of Latvia) or employers are recommended to get acquainted with them in detail. For example, in 2019, a meeting was held with the State Revenue Service on a student study on unregistered employment.

Moreover, cooperation with several students has been very successful and together they have developed new scientific knowledge in the field of customs and taxation, which has been included in research papers and presented at international scientific conferences, as well as several scientific publications that have been cited in international databases, such as:

- 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. The publication has been prepared with the help of a lecturer from the Department of Finance and two students (a Master's student from the Customs and Taxation programme and a Bachelor's student from the Logistics programme), which demonstrates the successful cooperation between individuals from different levels and departments;
- Jurušs, M., & Kūma, E. (2016). BEPS: Impact of international tax measures on business environment in Latvia. *XVII International*, 104. The publication was prepared together with a graduate student who graduated from RTU with honours and was nominated for the Gold Foundation;
- Jurušs, M., Šmite-Rože, B., Zēna-Zēmane, D., Celmiņa, M., & Pole, E. (2020, June). Possible options for ensuring of tax compliance. In 11th International Scientific Conference „Business and Management 2020 “. This publication was prepared together with graduate students from RTU. One of them has been working for the State Revenue Service for several years;
- Jurušs, M., Roze, L., & Lūka, M. (2019). IMPACT OF VALUE ADDED TAX ON RESTAURANT SERVICES. *Acta Prosperitatis*, (10), 23-158. The publication was prepared together with a RTU graduate student and a researcher from BA Turība, which shows the collaboration with other universities;
- other joint publications with students (**see list of publications in the Annex**).

It can thus be unequivocally stated that the award of a Master's degree is based on the achievements and insights of the relevant scientific and professional field.

The faculty members organise publicity events (e.g. discussions in the "Tax sandbox" section at ifinances, the TV24 programme "Tax Labyrinths", etc.) for relevant final theses and student research.

In 2018, the Latvian Economic Development Forum (LEAF) competition for the best research papers in economics was awarded to Ģirts Feldbergs for his master's thesis "Curbing Value Added Tax Fraud" (supervisor Dr.oec. Māris Jurušs), while in the 2019 competition "LEAF Award 2019" student Ilze Varlamova was awarded for her thesis "Challenges of Tax Application in Cooperation Economies" (supervisor: M.Jurušs).

Finally, the collaborative research carried out with students is integrated and used in the further implementation of the study process - in the work with future students, thus starting the cycle of this process from the beginning.

**3.2.3. Assessment of the study programme including the study course/ module implementation methods by indicating what the methods are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. In the case of a joint study programme, or in case the study programme is implemented in a foreign language or in the form of distance learning, describe in detail the methods used to deliver such a study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.**

Students are actively involved in the study process and content development, both during the implementation of a specific study process, through a student survey after the completion of each study course, and through a survey of programme alumni. For example, at the start of each course, students are informed about the course objectives, expected outcomes, assessment, topics and other practical issues, and have the opportunity to express their priorities or expectations for the course.

Feedback on students' intermediate results is provided throughout the course so that students can analyse their results and understand what more they need to do to achieve a better final result.

Student mobility is implemented both during placements and by motivating students to take advantage of Erasmus+ opportunities.

The social dimension is an important aspect of the study programme, creating a comfortable environment for learning, including for students with special needs. Individual targeted support is provided, and other students are encouraged to be tolerant and respectful of other students' individual differences. For example, students with speech problems are given individual attention and special consideration, allowing them to present their work individually, in writing or in another way that suits them.

The study methods used in the study process are:

- group work, discussions, situation analysis, presentations, workshops to promote analytical, critical and creative thinking, reasoning and communication skills;
- lectures, seminars and practical works;
- independent, practical and research works;
- meetings with industry professionals and guest speakers as part of the studies.

The study process is designed as an active, engaging process for students, including lectures, seminars, discussions, solving situations and practical tasks, individual and group work, including research work, visits to companies and field trips, internships, guest lectures by representatives of employers.

The study programme is supplemented and updated during its implementation based on labour market research and consultations with employers and practitioners. Advice from alumni, students and faculty members plays an important role in improving the study process.

The programme regularly reflects on improving the form and process of study. The changes are mainly focused on replacing the learning style with "teaching to learn" and integrating information technology into management decision-making.

Currently, special attention is paid to one of the most common methods of active study work - the



analysis of situational tasks or situations (*case studies*), where the analysis of domestic and international transactions is mainly used. It should be noted that the faculty has developed a series of situational exercises as part of the programmes.

One of the aims of the programme is to develop and improve students' ability to work in teams in harmony with others, which can be achieved by varying the different forms of working. That's why the emphasis in classroom work is on interactive forms of study: small group work, group discussion and public defence of study works and research.

The study process regularly involves industry professionals and highly qualified specialists from potential employers - state institutions, international audit firms and other organisations, thus providing students with opportunities to gain knowledge on topical issues in the fields of customs, taxation, economic security and related areas during their studies. Guest lectures by both Latvian and foreign lecturers are organised every year as a compulsory part of the study process. During the reporting period, students had the opportunity to meet and discuss with the following guest speakers:

- I.Šnucins, Deputy Secretary of State for Tax, Customs and Accounting, Ministry of Finance. Regular annual meetings are held with representatives of the Ministry of Finance. For several years (2017, 2018, autumn 2019), visits to the Ministry of Finance were organised, where students had the opportunity to discuss current topics in the field of taxation (Tax credits. Tax reform. Tax updates. State budget). In 2020, 2021, the guest lecture was organised remotely. In autumn 2022, 25 Master's students visited the Ministry of Finance again;
- A.Latkovskis, Member of the Saeima, at the time Chairman of the Saeima Monitoring Commission for Preventing and Combating Corruption, Smuggling and Organised Crime, met with students in 2016 on the topic: current issues in national economic security;
- K.Randlane and H. Koitla, docents from Estonian Security Academy, visited RTU in February 2018 as part of a mobility visit and participated in discussions in the study course "Tax Planning" on the topic of tax planning in the EU;
- M.Antovs, assistant professor at the D.A. Cenov Academy of Economics (Bulgaria). On 15-19 October 2018, within the Erasmus+ programme, SESMI Associate Professor Dr Momchil Antov met with RTU SESMI Director prof. Aivars Vilnis Krastiņš and the faculty members to discuss issues related to customs education and opportunities for cooperation between the two universities. M.Antov gave guest lectures to RTU Customs students on customs control in the EU, customs procedures, use of simplified customs procedures and AEO status, among other issues;
- D.Kiso, Professor at the Münster University of Applied Sciences, who visited RTU with a group of students in 2017. The visit included a seminar on international tax aspects for German and RTU students;
- I.Butāne, Partner at EY Latvia, and Marta Celmiņa, Tax Expert at EY 2022, gave a guest lecture to students (remotely) on current international tax issues;
- V.Krisholde, Tax Manager at Deloitte Latvia, gave a guest lecture in 2022: Situation Analysis of Income Tax Planning Solutions in the International Environment, as well as in autumn 2022 - Tax Impact on Business and Competitiveness;
- J.Zelmenis, Managing Partner at BDO Latvia, shared his professional experience, while D. Vodolagins, Head of the Tax Department at BDO gave a guest lecture "Tax Planning". The discussions gave students the opportunity to discuss international tax planning issues, including case studies.
- V.Sakne, Tax Manager at PricewaterhouseCoopers, in March 2019, a student visit to the PricewaterhouseCoopers office was organised to discuss the topic with the students: Taxation in structuring international transactions;

- E.Vilnis, Deloitte, Senior Tax Consultant, Topics: Tax residency. Related persons. Transfer Pricing, 2016, 2017, 2018;
- A.Breicis, AAT, Tax Manager, Topics: Application of transfer pricing. 2016;
- M.Korsaks AAT, Tax Manager, Topics: Income tax options for business operators. 2016;
- R.Niedra, Senior Expert, VARUL (now BDO Latvia), during the visit in 2015, current court cases on tax issues were discussed;
- S.Batjuskovs, Ernst & Young Baltic SIA, on 9 October 2017, gave a guest lecture to 1st year Master's students of the programme "Administration of Customs and Taxes". Guest lecture on "Application of Conventions to Personal Income and Prevention of Double Taxation".

It should be noted that guest lectures are also given by lecturers who themselves have graduated from RTU, thus telling and demonstrating their professional development and opportunities to current students. For example, the guest lecturers I.Butāne, M.Celmaņa and S.Batjuskovs are graduates of RTU IEVF.

The study programme takes into account the principles of student-centred education, which aims to develop students' abilities to think critically and to develop and understand the purpose and tasks of a given practical work or individual work. The study programme is oriented towards the integration of metacognition in the study process by promoting reflection on one's own thinking and actions in the study courses. Using metacognitive principles, students can plan their activities according to their own learning objectives and manage their own learning, while also assessing themselves and their achievements, which requires them to analyse what they have learned.

Learners can assess their own performance, as well as that of their peers, and analyse what they still need to learn or strengthen in order to achieve a better end result.

For example, in the "Tax Planning" and "Tax Analysis and Forecasting" courses, a number of independent assignments are organised in the form of a *workshop*, i.e. students are required to prepare a thesis on a given topic and participate in *peer to peer review* and evaluation of the theses submitted by other students. The lecturer plays a moderating role and assesses how the student has assessed other students.

In addition, in line with the system of staff evaluation common in the profession, the course "Tax Planning (study project)" also includes such evaluation. Specifically, the student's ability to collaborate in a multi-faceted team on a given project (research) is assessed - the student provides a self-assessment, their teammates provide assessments of their performance, and the lecturer provides their assessment, including how the students performed their assessment task.

Situational analysis is used to assess learning outcomes, and the problem-based learning approach involves students' critical thinking, group work and integration of knowledge. *Gamification* approaches are also used in the study process (e.g. in the courses "Tax Planning", "Tax Analysis and Forecasting" , which include the 3I principle: intrigue, involvement and opportunity. In particular, interactive learning materials (video, presentation, scenario analysis) include various elements that require active student engagement and critical thinking in order to complete a given test, practical or individual assignment. This is made possible by the digitisation of study courses in the H5P environment.

Within the framework of the study programme, the research and scientific publication skills are promoted by involving students in writing and presenting scientific articles at the annual RTU Student Scientific and Technical Conference (subsection "Customs and Taxes"), as well as at the RTU and LU Joint Student Conference. Student abstracts are published in the RTU e-study system, and the best students are nominated and awarded at the plenary session of the RTU Annual Student Conference.

The study courses assess students' ability to use theoretical knowledge in practical work, development of study projects, independent work skills, working both individually and in a group, identifying problems and proposing solutions, ability to discuss and argue their opinions, ability to present the results of their work. The assessment structure of the courses consists of an assessment component of the student's activities during the semester and an component. For those courses of study culminating in an examination, the final assessment shall be based on the conditions laid down by the member of the teaching staff responsible, which provide for the assessment to be determined from the examination marks and at least one intermediate examination grade. In addition, the examination grade must not exceed 50% of the final mark for the course of study when determining the overall final grade. If attendance is included as part of the course grade, the attendance grade must not exceed 15% of the final course grade.

Taking into account that RTU has uniform requirements for the assessment of the results achieved in study courses, then there are no differences in the implementation of different study programme implementation options (or full-time, or part-time, or in Latvian, or English), in all variants there are the same assessment requirements for the relevant results to be achieved by study courses.

The programme is completed by a **state examination**, which is graded according to a ten-point system and includes the defence of the Master's thesis. The criteria for the defence of the Master's thesis are:

- systematising, updating and extending theoretical and practical knowledge, individual experience and experience gained through study internship;
- independent analysis of educational and scientific literature, legislation and regulations relevant to the chosen specialty, mass media and other information sources, including in foreign languages;
- the problems to be investigated, which include individual and complex novelty elements, and the problem-solving skills to combine them with theoretical frameworks;
- analysis, systematisation and recommendations of current applied problems;
- developing and planning practical management and professional solutions;
- the ability to present research and practical results.

The **Diploma** of Professional Master's Degree in Administration of Customs and Taxes and Qualification of Customs and Tax Administration Manager is awarded to students who have completed the programme and passed the national examination with a score of no less than 4 (almost average) (see *Annex\_ Sample Diploma Supplement*).

The results of the assessment of students' knowledge in the Professional Master's study programme "Administration of Customs and Taxes" are discussed twice a year at the department meeting. The results are also collected and evaluated by the programme administration and serve as a basis for further improvement of the study process.

Academic staff involved in the study programme are provided with regular opportunities to develop their methodological and didactical skills.

They support students' extra-curricular activities, i.e. student self-government, which allows students to develop their independence and gives them the opportunity to implement their ideas, as well as various activities such as participation in student scientific conferences or student-organised events such as erudition competitions in which academic staff help prepare questions (actually related to the courses of study, for example on customs or taxation) or even by participating in the committees of the respective competitions.

At the faculty level, an event called "Pride of IEVF" is regularly organised together with the students' self-government, where students evaluate the academic and administrative staff on their

own criteria.

**3.2.4. If the study programme envisages an internship, describe the internship opportunities offered to students, provision and work organization, including whether the higher education institution/ college helps students to find an internship place. If the study programme is implemented in a foreign language, provide information on how internship opportunities are provided in a foreign language, including for foreign students. To provide analysis and evaluation of the connection of the tasks set for students during the internship included in the study programme with the learning outcomes of the study programme (if applicable).**

Practical Placement is a part of the Professional Master's study programme "Administration of Customs and Taxes".

The internship is organised outside the higher education institution, in accordance with the Regulation of the Cabinet of Ministers of the Republic of Latvia of 13 June 2023 No.305 "Regulations on the National Standard of Professional Higher Education".

The procedure for organising internships at Riga Technical University in professional study programmes is determined by the decision of the RTU Senate of 28 January 2019 "On Approval of the New Procedure for Organising Practical Placement at RTU".

The Department of Customs and Taxes has developed the "Regulations on Internship in the Professional Master's Study Programme "Administration of Customs and Taxes" (see the Department's website: [Practical Placement](#)). The Practical Placement is carried out in public administration institutions or companies (enterprises) whose activities are related to customs, tax administration, tax payments and international economic relations.

The **aim** of the Practical Placement is to strengthen knowledge of the work of institutions, bodies and companies in the field of international economic relations, customs and taxation, to acquire additional information, practical knowledge, skills and competences specific to the field of customs and taxation.

The main tasks of the Practical Placement are to ensure:

- the student understands and navigates the laws and regulations relevant to his/her Practical Placement;
- familiarises himself/herself with the working organisation of his/her Practical Placement;
- acquires the necessary skills to promote professional competence, the ability to apply knowledge relevant to the sector;
- develops the ability to formulate and solves industry problems analytically;
- fosters communication skills, independent work and teamwork.

During the Practical Placement, the main focus is on collecting, processing, analysing and systematising information in order to understand the principles, significance and relevance of the Practical Placement, then the student becomes familiar with the current issues and problems of the Practical Placement, obtains, processes, analyses and systematises information necessary for the development and defence of the Master Thesis.

During the traineeship, the student becomes familiar with and understands the organisation and division of functions of the workplace, is able to navigate the laws and regulations related to the

workplace, collects and processes information on the customs clearance process or tax administration and collection issues, understands the principles, importance and relevance of the workplace, as well as develops independent and teamwork skills.

The Practical Placement is necessary for the student to acquire professional skills and abilities, expanding theoretical knowledge, to get acquainted with and understand the principles of the Practical Placement, its significance, to evaluate current issues, to perceive and be able to analyse problems, to obtain, process and analyse information necessary for the elaboration and defence of the Master Thesis.

At the end of the Practical Placement, students prepare and defend an Practical Placement report, which serves as a basis for the Master Thesis. In Practical Placement Report Defence Committee is also attended by senior specialists from the SRS and customs authorities. The evaluation results are entered into the ORTUS system mentioned above.

Students Practical Placement are supervised by qualified specialists from both RTU and the SRS: 24% of students has customs supervisors assigned as Practical Placement supervisors, 21% - heads of departments and divisions, 35% - shift supervisors and 20% - chief tax inspectors.

Practical Placement consolidate the knowledge and practical skills needed for the qualification. The total scope of the Practical Placement, as already mentioned, is 8 ECTS / 6 CP or 39 ECTS / 26 (6+20) CP.

Practical Placement are organised in accordance with the Practical Placement agreements. The Practical Placement for Master's students usually take place at their workplaces, both at the SRS Customs Administration, the Tax Administration, the Tax and Customs Police, SRS offices, Customs checkpoints, etc., as well as in various companies. **Annex 13\_Student's Practical Placement Places** gives details of the internship places.

The programme administration is aware of the seriousness of the Practical Placement issue and is actively involved in providing new internships for students, and the teaching process is organised in such a way that the topics of students' teaching and research work are related to customs and tax administration issues.

The study programme includes a 8 ECTS / 6CP internship (Master Thesis Practical Placement) and a 20CP Practical Placement for students whose previous education is a Academic Bachelor degree.

The Master's Practical Placement tasks and study programme deliverables are shown in **Annex 8\_ Mapping of study courses**.

The tasks of the Practical Placement contribute to the achievement of the study programme outcomes. The student acquires practical skills, the ability to identify and analyse topical problems. The student collects and researches the information necessary for the Master Thesis. The main aim of the Practical Placement is to systematise, consolidate and extend the acquired theoretical knowledge on the work of institutions, bodies and enterprises in the field of international economic relations, customs and taxation.

The Practical Placement tasks are designed to ensure the achievable outcomes of the programme and thus the achievement of the programme's objective - to prepare socially responsible and qualified customs and tax administration managers whose knowledge, leadership skills and competences will enable them to work in public institutions, municipalities, non-governmental organisations and the private sector, leading their development and change.

During the Practical Placement, students have an internship supervisor from the internship site and an Practical Placement coordinator from the university. To achieve the tasks of the Practical

Placement, the Practical Placement coordinator advises and organises face-to-face meetings with the students. The results of the Practical Placement are summarised in an Practical Placement report, which is assessed by the Practical Placement supervisor (from the internship site) and the Practical Placement coordinator (from the university), who reviews the written Practical Placement report. Students' presentation skills, the ability to present their opinion on the conclusions and proposals for the improvement of the organisation's (Practical Placement) performance, are developed during the defence of the Practical Placement at the Practical Placement evaluation committee.

The study programme also organises the recognition of Practical Placement. For example, in 2022 recognition of several student Practical Placement was undertaken. In accordance with the criteria set by the Cabinet of Ministers Regulation No.505 of 14.08.2018 and RTU Regulations "Procedure for Recognition of Competences Acquired Outside Formal Education or Obtained in Professional Experience and Study Results Achieved in Previous Education at RTU" (approved by the RTU Senate Decision No.632 of 23.09.2019), was performed 4 student Practical Placement were recognised by the Commission Decision (RTU Order No.02000-1.1-e/62 of 02.05.2022.) of 2 May 2022.

Internship opportunities are also provided in a foreign language, when performing internships in an international company in Latvia or abroad, For example, in the 2020 academic year, internship opportunities abroad were used by one master's student in an international company. Internship opportunities will also be provided for international students, if necessary, as until now the program was not implemented in English.

### **3.2.5. Evaluation and description of the promotion opportunities and the promotion process provided to the students of the doctoral study programme (if applicable).**

### **3.2.6. 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 marks of the final theses.**

In their Master Theses, students carry out independent research, integrating scientific and professional achievements in the field of customs and tax administration and achieving excellent and outstanding results. The topics of students' Master's Theses can be divided into three areas: customs-related topics, tax-related topics and related topics (strategic management, national economic security, control, audit, accounting, customs and tax professional competences, etc.).

Master's Theses reflect the latest developments in the industry and the labour market, and include in-depth problem analysis, practical proposals and scientific innovations. In accordance with the specifics of the study programme, priorities and plans set out in the state policy documents, recommendations of the State Revenue Service and other cooperation partners, students conduct research on topical problems of customs and tax administration, including sustainable tax development and improvement of the quality of the customs clearance process, digital economy and taxation, the development of a single control system, international tax issues, the improvement of customs risk management, the improvement of tax control, the fight against the undeclared economy, the management and improvement of international supply chains, as well as many other

issues of national relevance during the period.

For example, in recent years the following Master's Theses and the innovations they contain have been highly rated:

- "Conceptual solution for the application of the Combined Nomenclature codes for fuels", which develops a conceptual approach to improve the classification of goods to improve customs control and the application of appropriate customs duties (2022);
- "Opportunities to improve tax accountability to improve the tax debt recovery process", which develops a specific model that the tax administration could use for strategic tax debt management (2021);
- "Strategy for the introduction of a digital service tax in Latvia", which develops a strategy that the Ministry of Finance could use to introduce a digital service tax (2021);
- "Concept for combating undeclared work in Latvia", which develops a concept for the tax administration to improve its combatting of illegal employment (2021);
- "Solutions for managing and improving international supply chains", which developed a concept for customs to improve the security management of supply chains (2020);
- "Solutions to improve the market value of transactions for customs and tax purposes", which develops an algorithm that could be used by customs and tax administrations to apply transfer pricing and customs value to price ranges (2020).

An analysis of the final evaluations (see **Annex 12\_ Evaluations of student's final thesis**) shows that the vast majority of theses are regularly graded "very good", "excellent" and "with distinction". For example, in the period 2013-2020, on average 34% of all theses were graded "very good" (8 points), 23% of all theses were graded "excellent" (9 points) and 8% of all theses were graded "with distinction" (10 points).

RTU has established the Golden Fund of graduates, which includes the most outstanding and capable RTU graduates, judged by both academic achievements and social activities. Three graduates of this programme have also been included in the Golden Fund in 2015/2016 : Zane Rutkupe, Inga Pinka, Sabīne Elza Kalderauska; six graduates from this programme are also included in the 2017/2018: Ģirts Feldbergs, Kārlis Orleāns, Marika Ragucka-Ragovska, Rihards Pāže, Roberts Kuzmins, Valentīna Bizņa; four graduates in 2018/2019: Biņķe Agnese, Gavrilovs Mihails, Beitāne Daiga, Pejanoviča Sigita; five graduates in 2019/2020 : Agejeva Aleksandra, Pauļska Inga, Lāse Liene, Miloseviča Kristīne, Arturs Kovaļenko; four graduates in 2020/2021 academic year: Mažeika Baiba, Kipkēviča Mairita, Kravčenko Elīna, Kaņepe Paula.

### **3.3. Resources and Provision of the Study Programme**

**3.3.1. 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.**

To ensure the information base of the study programme, current literature in the field is reviewed annually and ordered according to the study courses included in the programme, e.g. the following

books were ordered to meet the needs of the study programme in the academic years 2019-2022:

- Wall, A. (2018). Virtual Tax: The taxation of virtual currency, 2018 edition / by Amy M. Wall, EA, MBA. (2nd ed.);
- Schneider, Enste, & Enste, Dominik H. (2013). The shadow economy: An international survey / Friedrich Schneider, Dominik H. Enste. (2nd ed.). Cambridge: Cambridge University Press;
- Trenta, C. (2015). Rethinking EU VAT for P2P distribution / Cristina Trenta. (EUCOTAX series on European taxation, volume 45);
- Watson, C. (2016). Tax procedure and tax fraud in a nutshell / by Camilla E. Watson, Professor of law, University of Georgia. (5th ed., West nutshell series);
- James, S. R. , redactors; Sawyer, Adrian J., redactors; Budak, Tamer, , redactors. (2015). The complexity of tax simplification : Experiences from around the world / edited by Simon James, Adrian Sawyer, Tamer Budak;
- Democritou, P. (2019). The crypto factor : Peek behind the blockchain and discover what it actually takes to succeed in the cryptosphere / Paul Democritou & Blaise Mathai ; foreword by Joel Comm;
- Organisation for Economic Co-operation Development. (2017). OECD transfer pricing guidelines for multinational enterprises and tax administrations : July 2017 / OECD. (2017 ed.);
- Bullen, A. (2011). Arm's length transaction structures : Recognizing and restructuring controlled transactions in transfer pricing / Andreas Bullen. (Doctoral series, v. 20);
- Bronżewska, K. (2016). Cooperative compliance : A new approach to managing taxpayer relations / Katarzyna Bronżewska. (Doctoral series ; v. 38);
- Lamensch, M. (2015). European value added tax in the digital era : A critical analysis and proposals for reform / Marie Lamensch. (Doctoral series ; v. 36);
- Lieljuksis, Teivāns-Treinovskis, Zahars, Lapsa, Mikažāne, Zeimanis, ... Rīga Stradiņš University (2021). Legal and practical problems of operational activity : Monograph / Aldis Lieljuksis ; reviewers: Dr.iur. Jānis Teivāns-Treinovskis, Dr.iur. Vitolds Zahars; editor-in-chief Aija Lapsa ; editors: Ināra Mikažāne (in Latvian), Jānis Zeimanis (English summary) ; cover design: Modris Brasliņš ; Rīga Stradiņš University;
- Schenk, A., & Thuronyi, V. (2015). Value Added Tax: A comparative approach / Alan Schenk, Victor Thuronyi, Wei Cui. (Second ed., Cambridge tax law series);
- Cockfield, A., Hellerstein, W., & Lamensch, M. (2019). Taxing global digital commerce. Kluwer Law International BV;
- EU Customs Law. Third Edition. Timothy Lyons. Oxford University Press.2018.;
- Asakura, H. (2003). World history of the customs and tariffs. World Customs Organization;
- Cécile Brokelind, Servaas van Thiel, Tax Sustainability in an EU and International Context, GREIT Series, June 2020, ISBN 9789087226206, p.470.

The main databases for students are EBSCOhost Ebook Academic Collection (~217,100 e-books in all disciplines), Science Direct, Scopus, Web of Science, O'Reilly Learning Platform (access to over 47,100 e-books), Proquest Ebook Central (~200,000 e-books), SpringerLink (~21,270 e-books (published from 2014. 2021), IEEE Xplore Digital Library, ACM Digital Library, Wiley Online Library, Latvian Standards Database (only available in the library)

For the needs of the study programme, a specific literature base has been created on the recommendation of staff and students and is available at RTU Scientific Library, Paula Valdena street 5 ([Scientific Library](#)), as well as via e-resources. The library has a 24-hour reading room, which is equipped and available to students upon registration in ORTUS.

The study programmes of the Faculty of Engineering, Economics and Management are implemented in a modern environment. The study process is organised in RTU buildings in Riga:



Kalnciema street 6, Meža street 1/1 and Ķīpsala Campus. 90% of the teaching, scientific and administrative work of RTU IEVF is carried out in the IEVF building at Kalnciema street 6, which was put into operation on 29 August 2008. All classrooms are equipped with multimedia equipment - a computer with internet access, a speaker system and a projector. As of autumn 2019, the HP Shareboard system has been introduced in several classrooms, allowing to project what one writes on the whiteboard onto screens. This makes it possible to ensure a modern learning process. Each member of faculty staff has their own personal computer and a well-equipped workstation.

The **auditoriums** are used for theoretical and practical classes. **Computer rooms** are used for practical tasks, allowing students to learn the latest information technologies and databases. Information technology and databases are basically used or acquired in courses of study, the acquisition of which is additionally required for students with a prior Academic Bachelor's degree and a Professional Bachelor's degree and/or a Level 2 professional higher education in the subject areas of law, engineering and technology, production and processing or construction, or equivalent. For example, new computer-based systems are being introduced: *EMDAS (Electronic Customs Data Processing System)*, *EDS (Electronic Declaration System)*, *ITMS (Integrated Tariff Management System)*.

Due to the fact that the Department of Customs and Taxes regularly organises refresher courses for both customs and tax professionals, students also have access to the latest information on developments in the customs and taxation system.

The use of the RTU electronic study environment ORTUS additionally provides students with information about a particular study subject, its learning requirements and methodological materials. The introduction of ORTUS has expanded the possibility to work qualitatively with students and to additionally offer various study materials. Students can also track their performance in this electronic environment. Increasing the use of technology and the speed of information exchange make in-person classes more effective and encourage students to work independently.

In 2021-2022, within the framework of the ESF co-financed project "Development of Effective Management of Riga Technical University" (No 8.2.3.0/18/A/012.), significant improvement (digitalization) of several study courses (Tax Planning, Tax Analysis and Forecasting, Modern Research Methods in Customs and Taxation) was carried out, supplementing the study course materials with modern solutions in H5P environment (interactive presentations, videos, tests, workshops, etc.).

### **3.3.2. Assessment of the study provision and scientific base support, including the resources provided within the framework of cooperation with other science institutes and higher education institutions (applicable to doctoral study programmes) (if applicable).**

### **3.3.3. Indicate data on the available funding for the corresponding study programme, its funding sources and their use for the development of the study programme. Provide information on the costs per one student within this study programme, indicating the items included in the cost calculation and the percentage distribution of funding between the specified items. The minimum number of students in the study programme in order to ensure the profitability of the study programme (indicating separately the information on**

**each language, type and form of the study programme implementation).**

The funding of the study programme, its sources of funding and information on the cost per student are given in **Annex 15\_Programme Funding**.

The funding is used for programme development, including staff salaries, staff development, participation in international scientific conferences and material and technical support. The largest share is used for wages (50% of all costs), employer's social security contributions, compensation and benefits (12%) and infrastructure costs (17%). Infrastructure costs include all charges related to the maintenance of buildings and grounds, the provision of IT systems and the operation of service vehicles.

Information on the breakdown of funding between cost items is provided in the Annex "Breakdown of funding between cost items" of the Self-Assessment Report. Information on the cost per student is given in the Annex "Breakdown of funding between cost items". Information on the minimum number of students required for the study program is given in the Annex to the Self-Assessment Report "Minimum number of students to ensure the cost-effectiveness of the study program".

In order to ensure the cost-effectiveness of the study programme, RTU has set the minimum number of students in each study year:

- 19 full-time domestic students at first cycle, Bachelor's and Master's levels (including second level professional study programmes),
- part-time in-person and part-time extramural domestic students at first-level, Bachelor's, Master's levels (including second level professional study programmes) - 15 students;

### **3.4. Teaching Staff**

**3.4.1. 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 programme is delivered by 6 PhD-educated faculty members.

Detailed information on the teaching staff involved in the study programme, their academic positions and degrees is given in the annex to the self-assessment of the study field.

In accordance with the requirements of Section 39 "Academic Staff of Professional Study Programmes" of the Law on Higher Education Institutions, in order to comply with the need to acquire practical skills and knowledge, the position of docent, lecturer and assistant in the profile subjects of professional study programmes may be held by a person with higher education without a scientific doctorate degree or without a professional doctorate degree in arts if he/she has

sufficient practical work experience relevant to the subject being taught.

The faculty staff of the Department of Customs and Taxes involved in the implementation of the study programme regularly improve their qualifications.

Associate Professor Dr.oec, Māris Jurušs is the author of two books (Taxes, 2019; Tax Planning in Latvia and Internationally, 2021). Māris Jurušs has extensive professional experience in tax sphere. Māris Jurušs has worked for several years in the Tax Policy Department of the Ministry of Finance, has gained experience in an international audit firm, and has worked in numerous projects and working groups on tax and customs issues. Māris Jurušs has participated in several international research projects and is the author of several publications included in international academic databases. Māris Jurušs is an expert at Latvian Council of Science. Māris Jurušs has improved his qualifications by taking part in a number of refresher courses. For example, Competence-based learning in higher education: challenges and solutions (2020); Developing research competence: attitudes and ethics of academic and scientific staff, research design and management (2021); Virtual processes, digitalisation, online personality, online communication and the psychology of cyber-health (2022). In addition, Māris Jurušs regularly participates in Academic Conferences organised by IEVF and in recent years has chaired subsections of the conference where he and his colleagues discussed topical issues and opportunities for improving the study process. Māris Jurušs regularly participates in ERASMUS+ teaching visits abroad. In 2016-2022, Māris Jurušs has given several guest lectures at the Münster University of Applied Sciences, Bruno Technical University, Tallinn Security Academy. The experience gained helps to achieve better study results. The improved qualification allows for a more professional organisation of the study process, teaching students to carry out independent research for the Master's thesis. The research and publications are used as sources for teaching material in the courses. For example, Māris Jurušs' book "Tax Planning in Latvia and the International Environment" (2021) is one of the main sources for the study course "Tax Planning". This allows the use of the flipped classroom principle in the study process, with in-person discussions, seminars and workshops.

Dr.oec., J.Hudenko holds a PhD in Economics from the Faculty of Engineering, Economics and Management of Riga Technical University, she is also an expert of the Latvian Science Council in the field of economics and entrepreneurship. J. Hudenko is an assistant professor at the RTU Institute of International Economic Relations and Customs, and the author of more than 200 scientific publications in the field of finance and transport, including two books. J. Hudenko is the head of the Latvian railway infrastructure charging and capacity distribution company LatRailNet AS and represents the Latvian railway sector in several important international organisations: International working groups of railway infrastructure charge setters - CHRISTINE, PRIME (the Platform of Rail Infrastructure Managers in Europe), North Sea - Baltic Rail Freight Corridor. J. Hudenko holds a certificate of Professional Board Member of the Baltic Institute of Corporate Governance (BICG).

In 2013, Māris Jurušs together with Normunds Rudzītis, attracting experts from the RTU Faculty of Chemistry, conducted a study "Study on natural losses of petroleum products and alcoholic beverages in the customs area", commissioned by the Ministry of Finance and implemented with ESF support (identification No FM 2013/1-ESF/SFTP). The study only analysed the loss norms for petroleum products and alcoholic beverages, studied international regulations and identified losses in practice. The study resulted in proposals for changes to the laws and regulations, which were taken into account and the Ministry of Finance drafted appropriate amendments to the laws and regulations. The experience gained from the research is applied in the study process, both in courses on losses and customs and tax risks, and in the organisation of coursework, teaching students how to carry out practical research.

In 2015 Māris Jurušs participated as an expert in the study "Assessment of the Effectiveness of the Latvian Environmental Tax System in line with OECD and EU Requirements", commissioned by MEPRD and supported by the EC Environment Programme. In 2016, he was an expert in the World Bank's project on the assessment of Latvia's tax system in the section "Assessment of tax system developments in Latvia: excise taxation and environmental taxation" and prepared a report on excise and environmental taxation. The results of both studies are used in the study of the role of taxation in sustainable development.

In 2018–2019, Māris Jurušs participated as an expert in the World Health Organisation's "Pilot research project on illicit trade in tobacco products", which included a study on the illegal cigarette market in Latvia. The experience gained from the research is used in the study of customs and tax risks. In 2019–2021, Māris Jurušs has carried out several studies on excise duties on tobacco products and alternative products (e-cigarettes) involving students. The results of the research are used in the study process, discussing the results with students.

In 2021–2022, Māris Jurušs was invited as an expert in the LCS research cooperation project "Analysis of the Latvian labour tax system and opportunities for improving its competitiveness". The results of the research are used in the study process, including in the supervision of students' final works and study projects.

Ph.D. (Doctorate in Political Science), Associate Professor Aldis Čevērs is Head of the Department of Customs and Taxes at RTU FEEM IBCI. He also holds a Master's degree in Law from 2002. He has worked in higher education institutions (University of Latvia, Riga Technical University), private sector and public administration (General Customs Board of the State Revenue Service). He has more than 30 years of academic experience. Main research areas - customs functions and their implementation, organisation and evaluation of customs work, legal regulation of customs affairs. Three textbooks have been written, and several scientific articles have been published, including some indexed in SCOPUS.

He has prepared and taught courses in Customs Law, International Trade Law, Private International Law, European Law, Administrative Law. A.Čevērs has lectured on customs law issues at foreign universities in Ukraine, Belarus, Russia, Uzbekistan, has participated in training of entrepreneurs and state administration employees, has provided opinions on customs issues to entrepreneurs and judicial authorities. Continuing professional development has been achieved through participation in various events and conferences, both at national and international level, in the field of customs and related matters. A.Čevērs has participated in various international projects as a customs expert, and since 2019 has been a member of the EC Customs Training Programme Certification Assessment Board.

Aivars Gulbis, Mg.oec., practical docent has 32 years of professional experience in business and public administration, 21 years in academic and scientific research work, 26 years as a lecturer at a higher education institution. His education and work experience in customs since 1990 provide a good basis for academic work and research. Since 1996 he has been actively involved in professional associations related to transit and movement of goods (Executive Director of the Latvian Customs Warehouse Keepers Association, Executive Director and President of the Latvian National Freight Forwarders and Logistics Association), which enables him to identify and synchronise the interests and requirements of government and business by incorporating them into academic research processes. A.Gulbis is the co-author of the only Latvian-language customs textbook in Latvia "The Basics of Customs Operations", published in 2006 and reprinted five times due to its popularity. He has regularly participated in international scientific and professional conferences, given guest lectures at professional customs training institutions (academies, colleges, closed training centres) in various countries and has been involved in international

projects (BOMCA, INCU), which generally contribute to the development of professional competences and help students to achieve the set study results. Acted as an expert in the review of the compliance of four higher education institutions of the World Customs Organisation (WCO) Member States' customs training programmes with the requirements of the WCO Standards for the Customs Profession. As of 2011, he has supervised 298 and reviewed 280 final theses at various levels.

Daira Aramina holds a Professional Master's degree (MBA) in Business and Institutional Management with qualification in Business and Institutional Management, as well as a Bachelor's degree in Social Sciences in Psychology and a Diploma Certificate in Personnel Management Psychology from the Riga School of Pedagogy and Educational Leadership, Faculty of Psychology. Daira Aramina has 25 years of experience in the field of higher education at RTU: employment relations, staff competence, staff development, staff development, job evaluation, career planning, control of working conditions, social guarantees, work motivation, commitment. Daira Aramina has professional competences in human resource management in large organisations and human psychology, as well as in issues related to human capital and competence development. Daira Aramina is a representative of RTU Faculty of Engineering Economics and Management in the Latvian Personnel Management Association.

Aivars Gulbis and Aldis Čeveris within the European Social Fund project No.8.2.2.0/18/A/017 "Strengthening of Riga Technical University academic staff in areas of strategic specialisation" in 2021/2022 had an internship of 200 hours (VAS „Latvijas Dzelzceļš”).

In 2014, Normunds Rudzītis was commissioned by DCAF (The Geneva Centre for the Democratic Control of Armed Forces) as a member of the international group of experts to conduct a study "Assessment of Corruption Prevention Measures in Customs and Border Guards Offices in Republic of Kyrgyzstan", in 2014 and 2016, Normunds Rudzītis, as a member of the international team of experts commissioned by BOMCA (Border Management Programme in Central Asia), conducted an assessment of the implementation of the Kyrgyzstan Integrated Border Management Strategy 2012-2022.

As part of the BOMCA programme, in 2013 Normunds Rudzītis, Dushanbe, in 2017 Bishkek, in 2018 Dushanbe, in 2019, Tashkent and in 2022, Tashkent as international expert, chaired the regional customs working group of the CA Consortium of Border Management Training Institutions.

In 2018, under the BOMCA-9 commission, Normunds Rudzītis together with Edijs Ceipis (SRS) conducted a study "Corruption Prevention in State Customs Service under Government of the Kyrgyz Republic", within the framework of which a draft anti-corruption action plan and recommendations for its implementation were developed.

In 2019, Normunds Rudzītis together with Solvita Točs-Macāne (VRS) conducted a study "Assessment of the existing training systems in the border agencies (Customs and Border guards) of Tajikistan" for BOMCA-9, within the framework of which practical recommendations were developed for the improvement of the training system for border management staff.

In 2022, under the BOMCA-10 commission, Normunds Rudzītis together with Iveta Šice-Trēde (PVD) as international experts chaired the event "Regional Workshop for Development of Education and Training of Veterinary and Phytosanitary Services in Central Asia", during which recommendations were developed for the improvement of the training system of the services' personnel.

In 2022, Normunds Rudzītis, together with Marika Petrušina (VRS), as international experts, were commissioned by BOMCA-10 to develop a roadmap for the implementation of the Common Strategic Border Management Risk Assessment Framework in Kyrgyzstan, based on the assessment carried out.

Research experience is regularly and continuously used to develop study courses. Associated professor Dr.oec. Māris Jurušs gained experience, in participating in several international studies and projects in 2018/2019 (European Commission supported ProTax project, World Health Organisation study, etc.) and in several studies (excise duty on alternative tobacco products, digital economy taxation, competitiveness of labour taxes in the Baltic States, the impact of taxes on productivity, etc.), ensuring the link between science and practice in the learning process. Students are actively involved in research - carrying out study projects, participating in conferences and preparing publications on relevant topics. Students develop the ability to design, implement projects, conduct interviews and focus groups with experts, as well as the ability to communicate with stakeholders in a businesslike manner. The results of the research are fully used in the study process, including relevant publications used as teaching literature. For example, the course "Tax Analysis and Forecasting" and "Tax Planning" use the results from the research and publications of Dr.oec. Māris Jurušs on corporate income tax, VAT, tax effects on income inequality, digital tax and other topics. Research results are fully integrated into the study process through practical work, individual work or study projects.

Since 2010, RTU International Business and Customs Institute (IBCI) experts have been actively participating in the European Commission-funded border security project BOMCA (Border Management Programme in Central Asia) in five Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. From 2015 to 2020, RTU IBCI led the implementation of the BOMCA Programme Phase 9 Component 1 "Institutional Development of Border Management Services". This work resulted in 88 actions in areas such as improving the personnel management system of the Central Asian (CA) border management services, including improving staff training, improving the financial planning and control system, introducing solutions to reduce corruption, developing and implementing integrated border management strategies, and improving inter-agency cooperation and information exchange. More than 1400 participants took part and 40 sets of recommendations were produced. The implementation of the BOMCA Component 1 tasks was led and organised by Aivars Vilnis Krastiņš and Normunds Rudzītis, with the active participation of Elīna Ludāne, Aldis Čevers and Aivars Gulbis.

Since 2021 RTU IBCI is responsible for the implementation of the BOMCA Programme Phase 10 Component 3 "Facilitation of Trade" Activity 3.7 "Enhancement of training (including distance and e-learning tools) among CA, AF and EU MS Customs, Veterinary and Phyto-sanitary institutions" and this work is organised by Normunds Rudzītis.

Active participation in BOMCA, DCAF and other programmes in the field of border management ensures the application of previous work experience and theoretical concepts to make a practical contribution to the development of border management functions in Latvia and other countries, which in turn provides faculty members with opportunities to provide a broad perspective on the problems of the border management segment, analytically assess the practical benefits of implementing the latest scientific knowledge in management, including the development of strategic management in customs and practical work experience in developing strategic and operational documents and recommendations at various levels.

On 7 November 2019, to celebrate the 100th anniversary of Latvian Customs and the 25th anniversary of customs education, the SRS Customs Administration and the Institute of International Economic Relations and Customs of the Faculty of Engineering, Economics and Management of RTU (IBCI) organised a conference "Is Customs Ready for Tomorrow?/Shaping a Smarter Future of Customs". It brings together industry experts from around the world to discuss topical issues relevant to customs development.

Several guest lecturers are also involved in the organisation of the study programme. Doctor of

Law, Associate Professor at Riga Stradiņš University, Aldis Lieljuksis has extensive professional experience in security and legal issues. He has worked both in the Ministry of the Interior and for many years in academia. He is the author of several publications on security, corruption, law and other relevant topics. He has participated in several international projects on money laundering risk assessment, professional development in the field of corruption prevention and shadow economy reduction.

The professional field of the guest lecturer, Andželika Vilks, Mg.oec., is tax administration and tax risk analysis. She has worked for many years in senior positions in the State Revenue Service.

Sandra Kārliņa-Ādmīne is Deputy Director of the Customs Board, who has worked for many years at the SRS in various management positions, participated as an expert in several international projects (BOMCA, EC Customs projects).

Teaching staff involved in and implementing a study programme in English have a knowledge of English at least level B2.

#### **3.4.2. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.**

There are 10 lecturers involved in the implementation of the study programme, whose main place of work is RTU. In order to ensure the quality of study courses and their relevance to the needs of the industry and the labour market, several study courses have attracted several lecturers whose place of work is not RTU, but who are practising specialists in their field. During the reporting period, one lecturer has obtained a Ph.D. degree, thus introducing scientific knowledge and the latest achievements in the field of customs into the study process, promoting the use of research methods and conducting in-depth research in the study process. During the reporting period, two lecturers were elected as associate professors, thus strengthening the capacity of the study programme.

A list of the faculty members in the field of study, indicating the programmes in which they are involved, is attached in the **Annex\_Teaching Staff**. The study programme is implemented by RTU elected faculty members, guest lecturers and guest associate professors, as well as representatives of scientific staff. The number of faculty staff has remained virtually unchanged since the beginning of the reporting period.

There are some minor changes in the age structure. Doctoral students are involved in the study process, which contributes to the introduction of new teaching methods, as well as to the integration of the study process with their own scientific research. This trend is positive, as it reflects the generational renewal of teaching staff.

#### **3.4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of 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 or peer-**

reviewed monographs may be additionally specified. Information on the teaching staff included in the database of experts of the Latvian Council of Science in the relevant field of science (total number, name of the lecturer, field of science in which the teaching staff has the status of an expert and expiration date of the Latvian Council of Science expert) (if applicable).

**3.4.4. 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).**

**3.4.5. 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 programme and 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 faculty members involved in the programme collaborate within their courses to ensure that the courses are linked. For example, in the study course Tax Planning (study project), students are required to develop a research plan, analyse scientific literature, analyse the situation and other tasks. In fact, the study projects build on the theoretical knowledge acquired in other study courses. The topics of the courses are determined on the basis of recommendations from lecturers or employers, thus involving all lecturers in addressing topical issues. The organisation of a study project involves a number of teaching staff, resulting in both cooperation with students and mutual cooperation in managing the respective study projects. The skills acquired are also useful for students working on their Master's thesis. The internship tasks are related to the topic of the Master Thesis.

A number of mechanisms are in place to foster faculty staff collaboration in the implementation of the study programme. In the meetings of the Department, the faculty staff members regularly exchange their knowledge and experience on topical issues, discuss the results of study courses and final theses, discuss the results of student, graduate and employer questionnaires, as well as regularly organise internal qualification improvement seminars. For example, in 2021 the Department organised a seminar on Evaluation of Study Courses in e-Learning Environment, and in 2015 a seminar on Customs Information Systems. Teaching staff also regularly participate in joint RTU qualification improvement courses.

In 2018, Māris Jurušs and Aldis Čevērs visited Tallinn as part of an international security project (CEPOL), where Māris Jurušs and Aldis Čevērs met with representatives of the Tallinn Security Academy, Māris Jurušs gave a guest lecture to students, and there was a visit to the Tallinn Free Economic Zone and a customs post.



In 2019, Aldis Čevers, Aivars Gulbis, Normunds Rudzītis and Māris Jurušs went on a mobility visit to Narva, Estonia, where they learned about the integrated border control process at the Estonia-Russia border.

International Business and Customs Institute (IBCI) has been involved in the BOMCA project for several years and has been participating in the project since 2010. IBCI Component 1 of the European Commission-funded international border management project "BOMCA-9" In the framework of the project, several lecturers of the study programme have participated in a number of joint activities. Experience exchange is useful in the implementation of study courses, for example, in the implementation of the training course in Strategic Management of Customs and Tax Administrations, to keep abreast of current developments in the field of customs and tax administration Normunds Rudzītis since 2013 participates in the Consortium of Central Asian Border Management Services Training Institutions, cooperates with business associations and SRS experts to improve their competences.

Every year the faculty staff participates in experience exchange at RTU Academic Conferences, for example, Māris Jurušs has chaired sub-conferences in 2018-2021, as well as prepared and presented theses, including "Practical solutions in assessment in e-learning environment", "Challenges in implementation of remote study process", "Recommendations for final thesis development", "Interactive solutions in digitalization of study courses".

All professional development activities for teaching staff are planned and listed in an overall Development Plan.

In the academic year 2022/2023, there were 40 students and 10 lecturers and 7 guest lecturers, so the ratio is 4:1.

# Annexes

III - Description of the Study Programme - 3.1. Indicators Describing the Study Programme		
Sample of the diploma and its supplement to be issued for completing the study programme	Diploma_Diploma supplement_.pdf	Diploms_Diploma pielikums.pdf
For academic study programmes - Opinion of the Council of Higher Education in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions (if applicable)		
Compliance of the joint study programme with the provisions of the Law on Higher Education Institutions (table) (if applicable)		
Statistics on the students in the reporting period	Annex 5_Statistical data on students.pdf	5. pielikums Statistika par studējošiem.pdf
III - Description of the Study Programme - 3.2. The Content of Studies and Implementation Thereof		
Compliance with the study programme with the State Education Standard	Annex 6_Compliance to Education standards (Regulation nr.305).pdf	6. pielikums Atbilstība izglītības standartam (MK nr.305).pdf
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard or the requirements for professional qualification (if applicable)	Annex 7_Compliance with the Professional Standards.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	Annex 8_Mapping of the study courses.pdf	8. pielikums_Studiju kursu kartējums.pdf
The curriculum of the study programme (for each type and form of the implementation of the study programme)	Annex 9_Plan_of_the_study_programme.pdf	9. pielikums_Studiju programmas plāns.pdf
Descriptions of the study courses/ modules	Annex 10_Description of Study Courses (1).pdf	10.pielikums_Studiju kursu apraksti.pdf
Description of the organisation of the internship of the students (if applicable)	Internship_Management_Procedure (1).pdf	Prakses_organizēšanas_kartība (2).pdf
III - Description of the Study Programme - 3.4. Teaching Staff		
Confirmation that the academic staff of the doctoral study programme includes not less than five doctors, of which at least three are experts approved by the Latvian Council of Science in the branch or sub-branch of science in which the study programme intends to award a scientific degree (if applicable)		
Confirmation that the academic staff of the academic study programme complies with the requirements specified in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions (if applicable)		