APPLICATION

Study field "Internal Security and Civil Protection" for assessment

Study field	*Internal Security and Civil Protection*
Title of the higher education institution	*Latvijas Universitāte*
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Self-evaluation report

Study field "Internal Security and Civil Protection"

University of Latvia

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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,.

University of Latvia (hereinafter – UL) was founded in 1919 and is the only classical university in Latvia. The University of Latvia is a university of science, incorporating and developing the country's main study and scientific research potential in the field of humanities, natural, technical, and social sciences. UL serves science and fatherland. By participating in worldwide research and educational processes, it contributes to the growth and sustainability of the Latvian state and nation. UL retains its status as the largest higher education institution (hereinafter – HEI) in the country in terms of the number of students.

Mission: The mission of the UL is expressed in its motto “For Science and Fatherland”. The UL contributes to global science, higher education, knowledge, technology transfer and innovation, and ensures the growth of Latvian democracy and culture, the development of the Latvian language and the prosperity of the national economy.

Vision: Space for excellence, environment for development, time for responsibility. The UL is a university of science of high international standing. The UL creates an interdisciplinary, open, and innovation oriented excellent work and study environment. Activities of the UL form the basis for the sustainable development and economic transformation of Latvia.

Values:

- University community;
- Excellence;
- Science-based development;
- Openness;
- Cooperation;
- Academic freedom.

UL plays a significant role not only in the development of the higher education system in Latvia, but also in the growth of the country's economy, providing cutting edge studies and research, based on the unity of higher education and science. The UL actively participates in solving topical problems of the state and society, and is the centre of intellectual life in Latvia, where new knowledge is created, while nurturing the national language, culture and promoting the development of the state and society. The UL focuses its efforts on providing quality studies and developing scientific excellence, creating structures open to interdisciplinary and transdisciplinary research and studies, ensuring a high return on invested resources, sustainable and environmentally friendly use of resources. The UL is evolving as a modern international academic centre, creating an environment and infrastructure for excellence in studies, research, and innovation.

The study process at the UL is implemented at 13 faculties, 7 regional branches (available only in Latvian) and 3 medical colleges. Research activities are also performed at 18 research institutes, and various research, training and consulting activities are conducted in 27 study centres. The UL Regional Centre (available only in Latvian) coordinates and supervises the activities of the UL regional branches, as well as promotes cooperation between the UL and local authorities in the fields of human resources development, education and interdisciplinary research. The UL has more than 200 bilateral cooperation agreements with universities in 51 countries. The UL Culture

Centre (available only in Latvian) is represented by more than 20 amateur arts groups – choirs, dance groups, vocal ensembles, early music ensembles, theatre, a brass band, and a ceramics studio. The UL Sports Centre organises UL sports activities for up to 40 different sports classes in 11 sports – basketball, wrestling, group fitness classes, football, floorball, table tennis, kendo, general fitness, volleyball, cheerleading and self-defence. Within the UL regular activities are also performed by basic structural units: Museum of the UL, the UL Botanical Garden, the UL Experimental Rhododendron Breeding Nursery "Babīte", the University of Latvia Press, and the UL Baldone Observatory (available only in Latvian). The UL foundations are also operating successfully: UL Foundation and the Alumni Club (available only in Latvian).

To implement structural changes at the UL and promote interdisciplinarity, on November 16, 2023, the UL Council supported the Rector's Consolidation proposal for a five-faculty model, which includes 29 UL academic institutions. The new five-faculty model will consist of UL's Faculty of Medicine, Natural Sciences, Mathematics and Computing; Faculty of Economics and Social Sciences; Faculty of Humanities; Faculty of Educational Sciences and Psychology; and the Faculty of Law. **The Faculty of Medicine, Natural Sciences, Mathematics and Computing** will include the Faculty of Biology, Faculty of Computing, Faculty of Geography and Earth Sciences, Faculty of Physics, Mathematics and Optometry, Faculty of Chemistry, Faculty of Medicine, Institute of Geodesy and Geo-Information, Institute of Chemical Physics, Institute of Astronomy, Institute of Microbiology and Biotechnology, Institute of Atomic Physics and Spectroscopy, Institute of Materials Mechanics, Institute of Biology, Institute of Physics, Centre for Transdisciplinary Educational Innovation, and the Centre for Research of Natural Resources. **The Faculty of Economics and Social Sciences** will include the Faculty of Business, Management and Economics, Faculty of Social Sciences, and the Academic Centre for European and Societal Development Studies. **The Faculty of Humanities** will comprise the Faculty of Humanities, Faculty of History and Philosophy, Faculty of Theology, Institute of Philosophy and Sociology, Institute of Latvian History, Institute of Latvian Language, International Institute of Indian Studies, and the Institute of Livonian. **The Faculty of Education Sciences and Psychology** has been renamed from the previous Faculty of Pedagogy, Psychology and Art, while the Faculty of Law will maintain its current identity, continuing to prepare industry professionals and ensuring its sustainability. The decision will take effect from January 2, 2024, with changes being implemented gradually. To ensure the continuity of the university's operations, a transition period has been planned until September 1, 2024.

Over 30 meetings and discussions have taken place in the development and formation of the new university structure model, during which opinions of various groups interested in the university's development—including faculty and institute employees, students, alumni representatives, UL seniors, UL Council, Advisory Conventions, and Expert Councils—were discussed. By carrying out internal consolidation and following the good practices of Northern European universities, the University of Latvia is improving its organisational structure to boost its competitiveness, promote staff development, and provide comprehensive management of education and science. By creating a modern and effective governance-based structure, UL strives for higher quality in education and excellence in science, promoting a multidisciplinary and team-based approach. Our goal is to create conditions for everyone to effectively realise their potential for growth, forming adaptive plans, using a diverse range of research offerings, and choosing paths in academic or professional careers. With this decision on the consolidated faculties model, significant and ambitious changes are underway to focus efforts on achieving excellence in both research and education quality.

As of October 1, 2023, UL employs 3,155 people, including 1,390 academic staff and 1,765 general staff. In 2022, the university closed with a turnover of 98.4 million euros, and its equity as of December 31, 2022, was 133.1 million euros, or 65% of assets. UL's primary operations are in Riga at Raina Boulevard 19 and in the Tornakalns Academic Center, as well as in various locations in

Riga and regional branches in Aluksne, Bauska, Cesis, Jekabpils, Kuldiga, Madona, and Tukums.

In the world university ranking *Times Higher Education* for excellence in science, the UL is ranked 482nd, with an overall ranking of 1001-1200 range (2023).

The UL implements study programmes at all levels, covering 28 branches of science and 22 study fields. The UL 13 faculties offer 112 study programmes. See Table 1.1.1. for the study fields, the number of study programmes and the accreditation periods.

Table 1.1.1

Study fields implemented in the UL, number of study programmes and accreditation periods (31.12.2023.)

No	Study fields	Number of study programmes	Accreditation period
1.	Architecture and Construction	1	08.06.2022-09.06.2028.
2.	Wildlife Sciences	4	19.12.2023-20.12.2029.
3.	Economics	8	08.09.2021-09.09.2027.
4.	Physics, Materials Science, Mathematics and Statistics	6	04.10.2023-05.10.2029
5.	Geography and Earth Sciences	5	01.03.2023-02.03.2029.
6.	Information Technology, Computer Hardware, Electronics, Telecommunications, Computer Management, and Computer Science	4	23.08.2023-24.08.2029
7.	Internal Security and Civil Protection	4	05.06.2013-31.12.2024.
8.	Information and Communication Sciences	4	17.05.2023-18.05.2029
9.	Education, Pedagogy and Sports	9	12.06.2013-31.12.2024.
10.	Chemistry, Chemical Technologies and Biotechnology	2	25.10.2023-26.10.2029.
11.	Arts	1	24.11.2021-25.11.2027.
12.	Psychology	3	21.06.2019-21.06.2025.
13.	Sociology, Political Science and Anthropology	8	17.11.2023-16.11.2029.
14.	Social Welfare	2	14.09.2022-13.09.2028

15.	Religion and Theology	3	13.09.2023-14.09.2029
16.	Law	4 (+2*)	21.06.2019-21.06.2025.
17.	Translation	1	14.05.2013-31.12.2024.
18.	Management, Administration and Management of Real Property	8	29.09.2021-30.09.2027.
19.	Language and Culture Studies, Mother Tongue Studies, and Language Programmes	10	06.12.2023-07.12.2029
20.	Health Care	14	01.02.2023 -02.02.2029
21.	History and Philosophy	6	13.09.2023-14.09.2029
22.	Environmental Protection	3	05.06.2013-31.12.2024.

*licenced on 02.08.2023. and are not yet included in the respective field of study.

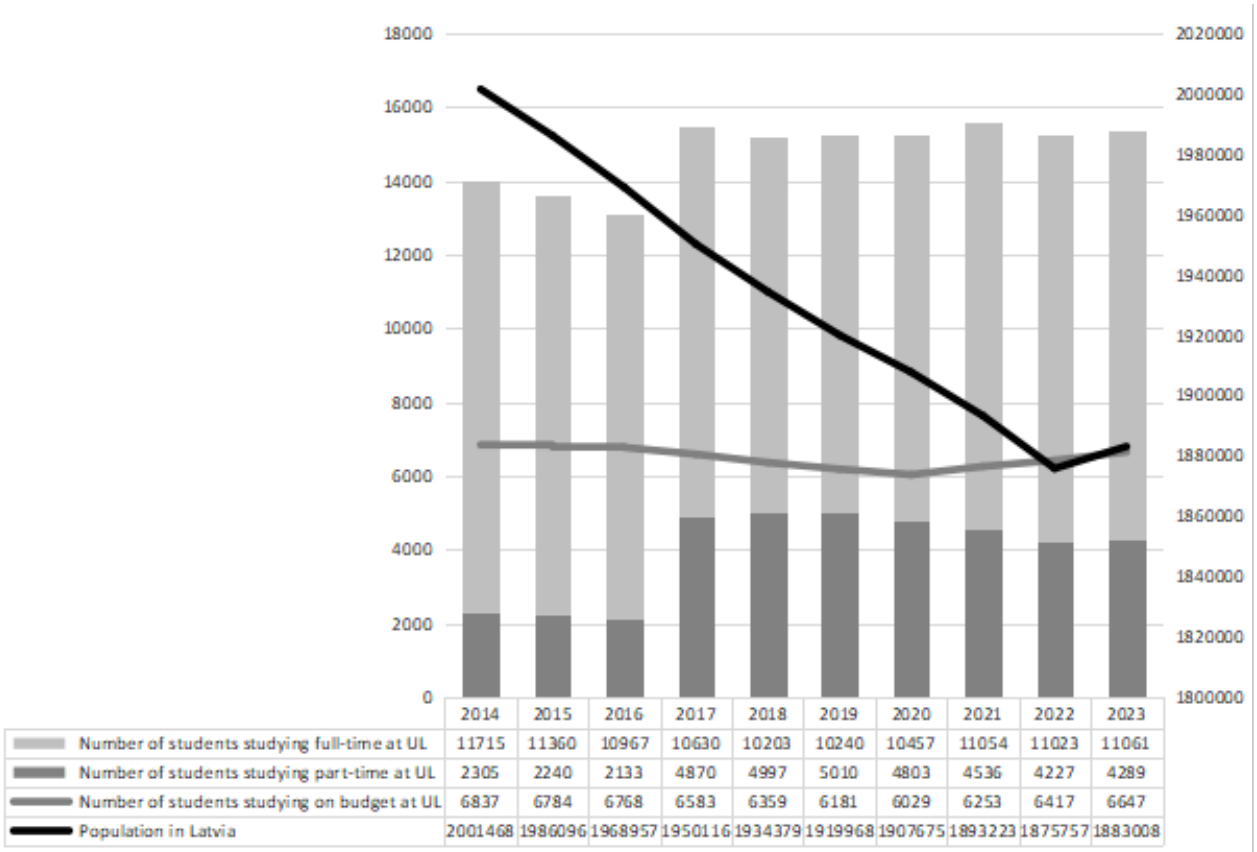
UL's study programs in specific fields of study are also available in seven UL branches across Latvia. For the 2023/2024 academic year, a total of 5 different study programs are offered in 2 fields of study in the branches, ranging from short-cycle professional higher education programs to professional bachelor's and master's degree programs. See table 1.1.2 for the number of study directions and programs offered in the branches.

Table 1.1.2

Number of study fields and study programmes implemented in the regional branches of the UL, data as of 2023

Regional branches	Aluksne	Bauska	Cesis	Jekabpils	Kuldiga	Madona	Tukums
Number of study fields	2	2	2	2	2	1	1
Number of study programmes	3	3	4	5	4	2	2
Number of students	56	213	513	135	296	76	291

As of October 1, 2023, 15,350 students are studying at UL, with 43% financed by state budget funds. About 10% of students are studying in UL branches. Each year, more than five thousand new students enrol. See figure 1.1.1 for student enrolment trends over the last ten years.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of students studying full-time at UL	11715	11360	10967	10630	10203	10240	10457	11054	11023	11061
Number of students studying part-time at UL	2305	2240	2133	4870	4997	5010	4803	4536	4227	4289
Number of students studying on budget at UL	6837	6784	6768	6583	6359	6181	6029	6253	6417	6647
Population in Latvia	2001468	1986096	1968957	1950116	1934379	1919968	1907675	1893223	1875757	1883008

Source: Population at the beginning of year, population change and key vital statistics - Indicators and Time Period.PxWeb (stat.gov.lv)

***Fig. 1.1.1.** Number of students at the UL compared to the population of Latvia, 2014-2023*

The UL Senate approved Strategic Study Program Clusters, study programs, and lifelong learning priorities for medium and long-term development, as well as long-term priority research areas and scientific activities, as outlined in UL's Study Process Development Plan until 2023 and UL Scientific Activity Development Plan until 2030. Both plans define the essential resources, and most effective funding, organisation, and management forms necessary for the realisation and development of education and science activities. The documents are based on Latvia's "Future Skills for Future Society" Education Development Guidelines 2021-2027 and the Latvian Science, Technology Development and Innovation Guidelines 2021-2027 and are informed by UL's strategic specialisation and mission as established in the UL Constitution.

Approved by the UL Senate, the UL medium-term development strategy for 2021-2027 (UL Strategy 2021-2027 LV, ENG) articulates the UL mission statement and defines strategic goals in six development areas, three each in core and institutional realms. Goals encompass science, education, public education, as well as staff and organisational culture, environment, and governance.

The 2021-2027 UL Strategy envisions the university's further development as an internationally recognized science centre, refinement of unique study and lifelong learning programs, and offerings for competitive work and study conditions. UL continues the work started in the previous strategic period to achieve the highest level of scientific excellence, promote student-oriented studies, and develop a modern study environment. UL is strategically fostering its involvement and contribution to Latvian society, refining necessary work conditions and environments for talent development. Sustainable growth is increasingly important and becomes a guiding principle across all of its

activities. Significant attention is given to ensuring academic honesty and strengthening a value-oriented UL organisational culture. See table 1.1.3 for UL's current strategic directions and goals.

Table 1.1.3

The UL Strategic Goals Map, 2021-2027

Development directions (D)	**Strategic goals (G)**
Development of principal activities	
1.D. Scientific excellence	1.G. Internationally recognized research university
2.D. Development of studies	2.G. Unique study offer and high competitiveness of graduates
3.D. Contribution to society	3.G. University activities as a basis for the growth of Latvia
Institutional development	
4.D. Talent development	4.G. Development- and excellence-oriented HR policy
5.D. Environment and governance	5.G. Green thinking, attractive, sustainable university environment, and effective administrative support
6.D. Organisational culture	6.G. Inclusive, cooperation- and innovation-focused culture

The outcomes of the implementation of *the UL Strategy 2021-2027* are measured by twenty-one performance indicators, five of which have been designated as *the UL Key Performance Indicators*. They are – research funding from foreign sources per full-time equivalent of academic staff in EUR, co-publications with foreign partners in *Scopus* and *Web of Science* databases (%), the percentage of graduates who are satisfied (rated at least 'good') with the quality of their studies (%); the percentage of foreign students at UL (%), as well as the commercialisation revenue (EUR/thousands).

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 main decision-making bodies of the UL are the Constitutional Assembly, the Senate, the Council, the Rector, and the Academic Arbitration Court. See Table 1.2.1 for the proportion of the composition of the main decision-making bodies of the UL and the terms of the elections.

Table 1.2.1

Characterisation of the terms of election, proportion of the composition, and authority of the main decision-making bodies of the UL

Decision-making Body	Term of Election	Total Number of Participants	Representation of Academic Staff	Representation of General staff	Student Representation	
Constitutional Assembly	3 years	200	65%	10%	25%	
Council	4 years	11	45.5%*			
Senate	3 years	50	76%	4%	20%	
Rector	4 years	1	100%			
Academic Arbitration Court	3 years	5	80%		20%	

*In the UL Council there are 11 members, of whom: five, selected in accordance with the procedure laid down in the Constitution of the University, are nominated by the Senate (45,5%); one, an eminent academic outside the University, is nominated by the President of the Republic (9%); five representatives of the public in accordance with the procedure established by the Cabinet of Ministers, involving the public in the selection process (including graduate organizations, industry associations and employers, representatives of academic, research and creative organizations, persons with internationally significant achievements in science, arts or business, representatives of sectoral ministries and local governments), shall be selected by the ministry under whose supervision the higher education institution is placed and nominated by the Cabinet of Ministers (45,5%).

For characterisation of the authority of the main UL decision-making bodies, see chapter 1.2. of *the UL Quality Management Handbook*. (*The Quality Management Handbook* is available in the section *Other annexes*)

The governance structure of the UL: LV, ENG

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.

The *Quality Policy* and the resulting *Quality Action Policy* are a set of quality-related principles, objectives and the actions necessary for their achievement. UL quality is defined as a measure of excellence, which characterises the ability to meet and exceed the visible and future needs of the involved parties, as well as to ensure the compliance of processes with the regulated requirements of the relevant sector, and international standards recognised in the organisation management.

The quality management system of the UL is implemented in accordance with the principles of the *Total Quality Management* (TQM), integrating the approach of excellence into the corporate culture of the UL. For the implementation of total quality management, the UL uses an

internationally recognised and applicable quality management methodology – the *European Foundation of Quality Management* (EFQM) excellence model. In the core activities the quality management system is deepened by developing internal quality assurance systems integrated into the quality management system, which are based on current sectoral standards and frameworks. The internationally recognised *Results–Approach–Deployment–Assessment–and–Refine* (RADAR) methodology is used to ensure the cycle and continuity of quality management at the UL; the *Plan–Do–Check–Act* (PDCA) approach is used in quality assurance systems.

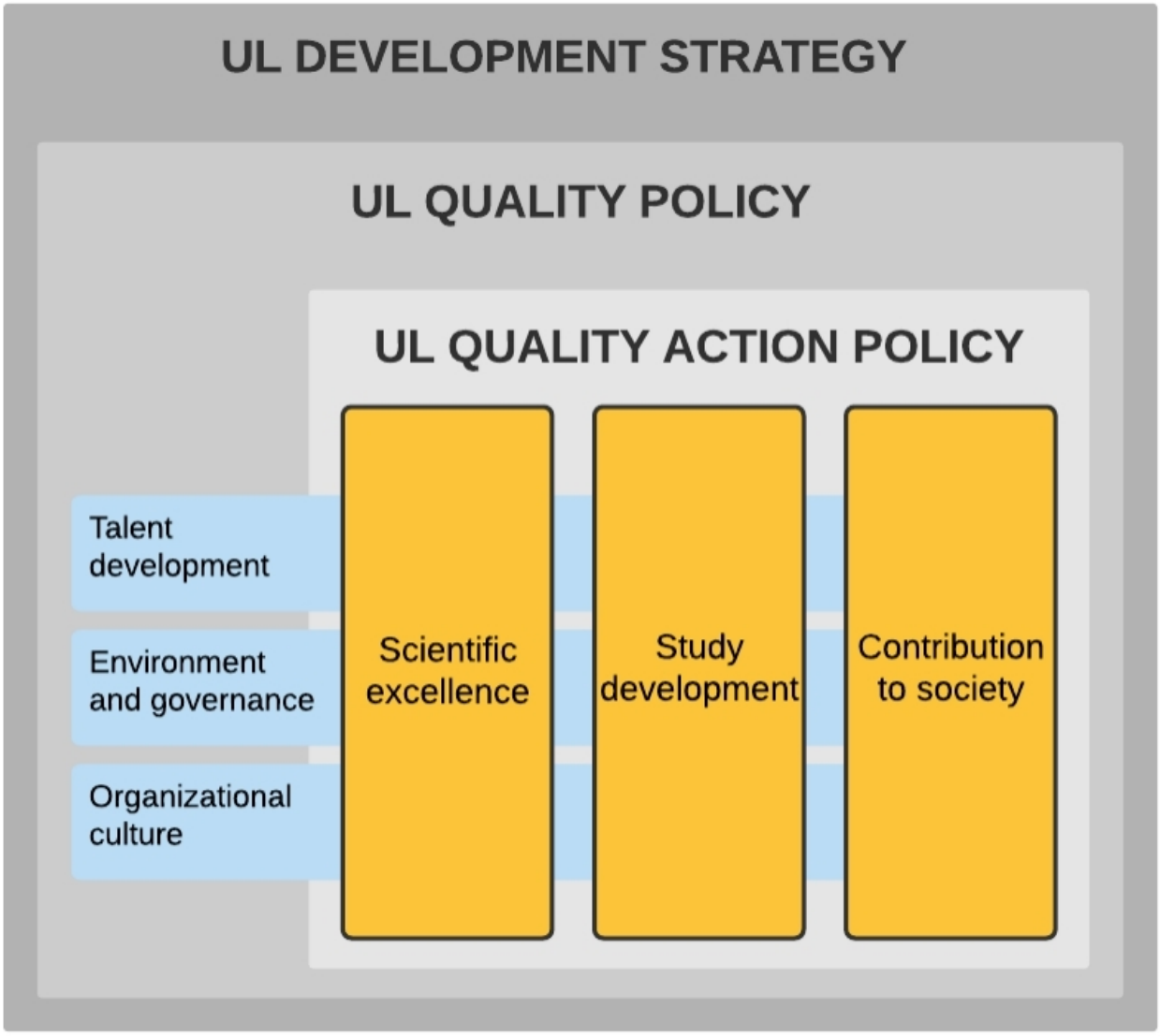


Fig. 1.3.1. *Hierarchy of the Quality Policy and Action Policies at the UL*

The quality management system documents are structured hierarchically according to the EFQM 2020 model: direction identification documents, implementation documents and documents supporting results. Figure 1.3.1 shows the UL's direction-setting documents.

Hierarchically, the highest quality management system documents are UL's Study Process Development Plan until 2030 (only in Latvian), UL Scientific Activity Development Plan until 2030 (only in Latvian) and the UL Strategy 2021.-2027, the promotion of which is the fundamental objective of the Quality Management System. The coordination of planning documents within the quality management framework provides the implementation and development of processes in compliance with the Strategic and Quality Goals of UL.

UL perspective regarding the quality of the implementation of the Strategy has been described by

covering all the key areas of activity in the UL Quality Policy, as well as specified in the main strategic development directions (scientific activity, studies and collaboration with society, as well as horizontally in the areas of talent development, environment and governance, and organizational culture) - in the UL Quality Action Policy.

Figure 1.3.2 provides a diagram of a quality management system with an integrated quality assurance system for studies. For a more detailed description of the UL Quality Management System, see Chapter 2.1 of the *UL Quality Management Handbook*. (*The Quality Management Handbook* is available in the section *Other annexes*)

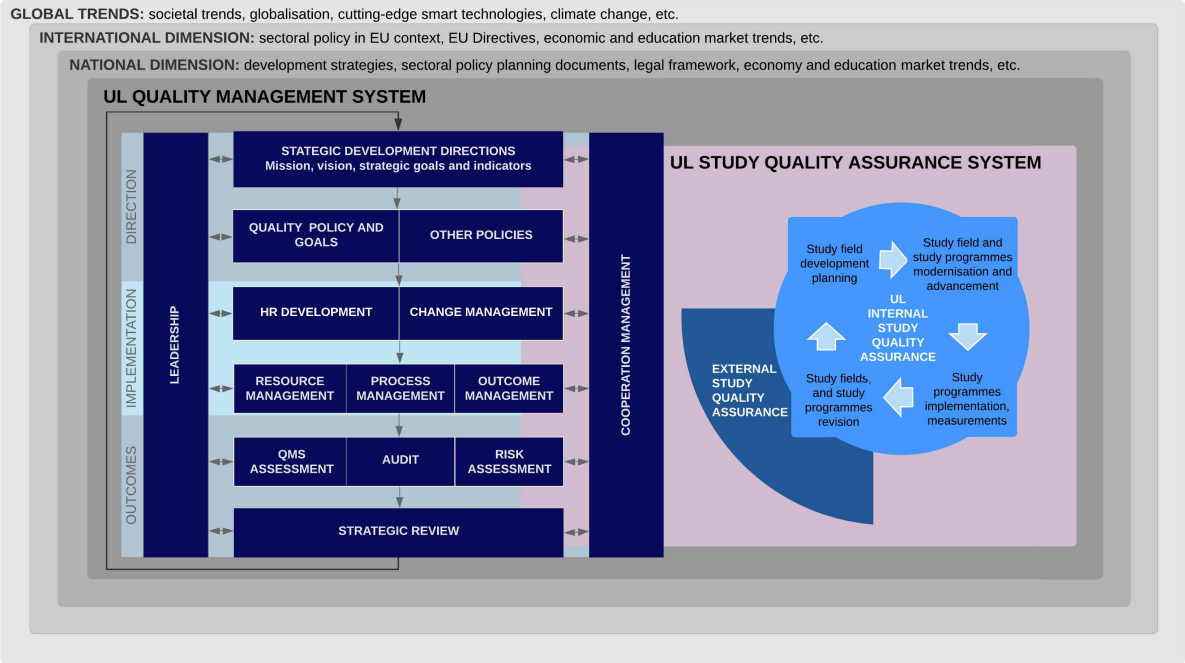


Fig. 1.3.2. *The UL Quality Management System and Principles of the Study Quality Assurance System of the UL*

To ensure the quality of higher education, the UL implements the Quality Assurance System for Studies, which includes procedures for planning, ensuring, measuring, and evaluating the quality of higher education in accordance with the requirements of legislation of Latvia, *the European Standards and Guidelines (ESG) for quality assurance in the European Higher Education Area (EHA)*, as well as for internal needs. In the UL planning for the development of the study field and improvement of the study programmes for a period of 6 years is ensured. The procedure for the implementation of study programmes is established in the internal legal acts of the UL, including regulation of the development of new study programmes, admission requirements, matriculation and registration for studies, development, implementation and review of study courses and modules, planning, implementation and assessment of study internship, organisation of assessments and final examinations, and rotation, the principles of academic integrity and their observance, exmatriculation, awarding of diplomas and certificates, the recognition of knowledge, skills, competence acquired through non-formal and extra-curricular education or in professional experience, recognition of learning outcomes achieved in the previous education, and referencing of academic activity, the procedure for conducting surveys, submission of student proposals and complaints, contestation of administrative decisions, doctorate promotion process, etc. UL ensures

that the measurements and data necessary for quality assessment and improvement are collected and used for both immediate corrective action and regular evaluation and planning of further improvement. The 6-year study field development plan is monitored annually, the measurements are analysed, and the SWOT is discussed, if necessary, by introducing changes to the operational study programme implementation plans, to the study field plan or, when assessing the overall development of study fields within the framework of the UL Strategic Control, by making amendments to the UL Strategic Action Plans. For more information on quality assurance of studies, see Chapter 3.1 of *the UL Quality Management Handbook*. For the breakdown of responsibilities for quality management and assurance, see Section 2.5 of *the UL Quality Management Handbook*.

The UL quality assurance system is based on the participation of key stakeholders in the quality assessment and improvement of the UL activities. Stakeholders of the UL are natural or legal persons, domestic and international, who use the services of the UL or whose socio-economic situation is affected by the activities of the UL. The key stakeholders are defined in Article 12 of *the UL Quality Policy*. For the description and examples of the roles of key stakeholders in quality management, see Section 3.2, subsection 1.2 (Table 3.6) of *the UL Quality Management Handbook*.

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.	The UL has formulated the Quality Policy, which is detailed in the Quality Action Policy in line with its strategic core activities. For quality assurance of higher education, the UL Studies Quality Assurance System (in compliance with ESG) has been implemented and integrated into the UL Quality Management System (in compliance with EFQM). For more information, see Part I, Section 1.3 of this document and Section 3.1 of the UL Quality Management Handbook (The Quality Management Handbook is available in the section Other annexes) The establishment, maintenance, and improvement of the UL quality management system are performed by the management and heads of core structural units (deans of faculties) and their delegated employees. The Academic Department is responsible for the establishment, implementation, and improvement of the study quality assurance system, in close cooperation with the heads of study fields and directors of study programmes. Two collegiate committees have been established for quality assessment with the participation of the UL stakeholders: The Quality Advisory Committee and the Study Programme Quality Assessment Committee. For more information, see Section 2.5 of the UL Quality Management Handbook.

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.	The development and internal approval of study programmes are stipulated in the Regulations of the University of Latvia on Study Programmes and Continuing Education Programmes (the UL Senate Decision No 102 of 24.04.2017). For more information, see part II, subsection 2.2.2. of this report, as well as subsection II of Section 3.1 the UL Quality Management Handbook Periodic quality review of study programmes is stipulated in the Procedure for Preparation of Annual Reports on UL Study Fields (the UL Order No 1/290 of 14.07.2020). For more information, see part II, subsection 2.2.2. of this report, Section 3.1, subsections IX, and X of the UL Quality Management Handbook.
3.	The criteria, conditions, and procedures for the evaluation of students' results, which enable reassurance of the achievement of the intended learning outcomes, have been developed and made public.	Information related to learning outcomes, including assessment, is contained in study course descriptions, the preparation and updating of which, as well as the rules for their publication, are stipulated in the Procedure for the Development and Actualisation of Study Courses at the University of Latvia (the UL Order No 1/277 of 10.08.2018). Process and assessment of entrance examinations and final examinations, as well as the assessment and recognition of learning outcomes achieved in previous education or professional experience, are regulated by the relevant regulations of the UL. For more information, see part II, subsections 2.1.4. and 2.1.5. of this report. The desired ethical and fair conduct and justice are ensured at the UL by internally regulating issues related to the academic freedom and academic integrity, electing, and ensuring the Academic Arbitration Court, and ensuring the operation of the Academic Ethics Committee, as well as regulating the principles of protection of intellectual property rights. For more information, see part II, subsection 2.1.6. of this report, and the Quality Management Handbook, Section 3.2, subsection 2.1.

4.	Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.	The principles of personnel management at the UL in the areas of personnel selection, labour relations, motivation system and personnel development are defined in the UL Human Resource Management Policy (the UL Senate Decision No 264 of 28.01.2019). Accordingly, the development of academic staff is planned for the medium-term, and training plans are drawn up for the year. The qualification requirements of the staff are defined in the internal regulatory enactments of the UL in accordance with the external regulatory enactments, however the requirements for ensuring the quality of work – within the framework of regular staff appraisal, including the analysis of students' satisfaction with the delivered study courses, as well as the results of scientific activity. For more information on attracting, engaging, developing, and retaining staff: see part 2, subsections 2.3.5. and 2.3.6. of this report, and the UL Quality Management Handbook, Section 3.2, subsection 3.2.
5.	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.	Information on students' grades is accumulated in the information system of the University of Latvia (hereinafter – ULIS) and analysed in the framework of study course implementation (including student-centred approach) and study programme improvement. Satisfaction of students and graduates with the study programme is monitored through communication activities of staff involved in the implementation of study programmes, representation of students and graduates in decision-making and advisory bodies, as well as by conducting surveys in accordance with the Regulation on the Procedure of Regular Surveys for the Evaluation of Studies at the University of Latvia (the UL Order No 1-4/260 of 12.06.2023.). For more information on the involvement of stakeholders in quality assurance see part II, subsection 2.2.4. of this report, and Section 3.2, subsection 1.2 of the UL Quality Management Handbook. Issues related to the efficiency of academic staff, available study resources and their costs are monitored in the core structural units (faculties, institutes, etc.) as well as centrally. For more information on study information management, see part II, Section 2.3. of this report, and Section 3.1, subsection VII of the UL Quality Management Handbook. The performance management system of the UL results had been introduced and implemented at the UL, within which the key performance indicators of the UL are monitored according to which further strategic decisions are made. For more information, see Section 3.2, subsection 7 of the UL Quality Management Handbook.

6.	The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study field whilst implementing their quality assurance systems.	The development of each study field is planned in accordance with the 6-year development strategy of the UL. The monitoring of the plan and the evaluation of its effectiveness are conducted within the framework of the annual self-assessment of the study field. These processes take place at the level of the respective Study Field Council, the core structural unit(s) implementing the study field (a study field may be implemented by several faculties), as well as at the level of the administration and the Senate. The UL provides the external evaluation required by the legislation, obtaining additional external quality certificates for individual programmes. For more information, see Part II, subsection 2.2.2. of this report, and Section IX and X of the UL Quality Management Handbook. To promote the quality and competitiveness of the study programmes of the UL, UL creates and finances internal grant projects (Fund for improvement of the study quality of the UL), as well as attracts external funds (European Social Fund (https://www.ozolzile.lu.lv/projekti/eiropas-socialais-fonds/)(available only in Latvian), Erasmus+ (https://www.ozolzile.lu.lv/projekti/erasmus/)).

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 study field "INTERNAL SECURITY AND CIVIL DEFENCE" has existed at the University of Latvia ("LU") since 2001, when the Faculty of Chemistry (FChem) started implementing the accredited study programme "Environmental Protection and Expertise" (accreditation period 02.05.2001 - 31.12.2007), and it was the first professional higher education study programme in Latvia in the field of occupational protection, which was later transformed into the professional master study programme "Work Environment Protection and Expertise".

Today, the field of study covers the full four-level study cycle (see Table 2.1.1.1), ensuring continuity of all levels and specialisation options, which allows to effectively continue the study process and improve the knowledge, skills and competence acquired by students. For example, students of the short-cycle higher professional education study programme "Labour Protection (LP)" can successfully continue their studies in the bachelor study programme "Occupational Health and Safety at Work", while after graduation from the bachelor study programme they can continue their studies in the master study programme "Work Environment Protection and Expertise" and subsequently in the doctoral programme. The programmes and the training model of the study programme are thus close to the idea of creating a single education area in Europe and in line with the Bologna Declaration of 19 June 1999 on the European Higher Education Area, which aims to achieve a unified higher education system in the EU Member States.

Table 2.1.1.1.

Study programmes in the field of study "Internal Security and Civil Protection"

No.	Level and title of the study programme	LRE code	Duration and volume (CP)	Type and form of studies	Language(s) of implementation	Degree and/or qualification obtained
1.	Professional Master's study programme "Work environment Protection and Expertise"	47862	80 / 40	*Full-time regular studies*	Latvian	Professional Master's degree in Labour protection and qualification "Senior specialist in Labour protection"
2.	Professional Bachelor's study programme "Occupational Health and Safety at Work"	42862	160	*Full-time regular studies* *Part-time regular studies*	Latvian	Professional Bachelor's degree in Labour protection and qualification "Occupational safety engineer"
3.	Short-cycle higher professional education study programme "Labour Protection"	41862	80	*Full-time regular studies* *Part-time regular studies*	Latvian	Qualification "Labour protection specialist"
4.	Doctoral study programme "Human factor, Occupational safety and Health"	51862	120	*Full-time regular studies*	Latvian / English	Doctor of science (PhD) in Social sciences

Following the mission and vision of the LU, as well as the strategic development directions of the LU, as defined in the LU Strategy 2021-2027, the objectives of the study programme are structured according to the six development directions of the LU in terms of operational and institutional development objectives (see Table 2.1.1.2.). The objectives highlight the priorities of the field of study within the framework of the LU strategic objectives, focusing on the scientific and economic growth needs to be addressed at the level of the field of study.

Table 2.1.1.2.

Study programme objectives within the framework of the strategic objectives of the LU

No.	LU development directions Study field objectives	LU strategic objectives	Study field objectives
Operational development			
M1.	Scientific excellence	University as an internationally recognised science centre	Developing and enhancing innovative and research-based studies by promoting students' involvement in research at all levels of education.
M2.	Study development	Unique study offer and high graduate competitiveness	Promote the development of interdisciplinary and international study programmes by encouraging student and staff mobility.

M3.	Contribution to society	University activities as a basis for Latvia's growth	Promote the dissemination and transfer of advances and knowledge in internal security and civil protection, including interdisciplinary social science.
Institutional development			
M4.	Talent development	A development- and excellence-oriented HR policy	Promote the development, growth and renewal of academic staff
M5.	Environment and management	Green thinking, attractive, sustainable campus environments and effective administrative support	To provide an open, collaborative and creative learning and research environment.
M6.	Organisational culture	An inclusive, collaborative and innovation-driven culture	Ensure staff and student involvement in the planning and implementation of the development of the field of study

The main goal of the development of the study field is to provide research-based and innovative civil and occupational health and safety studies, including their newest concepts - ergonomics, human factors, in a full cycle of three levels which use and integrate occupational health and safety, that meet the needs of the Latvian and European labour market, health promotion, occupational health, ergonomics, human factors, engineering, social sciences and occupational safety into a coherent whole, producing highly qualified professionals with the appropriate skills, knowledge and competences in civil and labour protection for Latvia, the EU and the global community. The aim of the field is directly in line with the strategic goal of the LU - to provide science-based studies using modern and competitive educational technologies, promoting the development of higher- level studies, scientific activities of students and staff, multi-disciplinary, subject-oriented approach. Both the thrust and the strategy are integrated into the overarching goal of making the University a science university that produces and attracts high-calibre scientists. Its knowledge transfer contributes to the competitiveness of the Latvian economy and to improving the quality of life of society. The knowledge and technologies produced at LU are highly valued internationally. The "Sustainable Development Strategy of Latvia until 2030" approved by the Parliament was used to assess the prospects of the field of study and study programmes from the point of view of the interests of the Republic of Latvia. The aim of the development strategy is to provide students with a globally recognised education in the fields of occupational safety, occupational health and human factors/ergonomics, which would not only be applied to solving problems of importance to the Latvian economy in terms of occupational safety and health promotion, but would also be aimed at solving the global problems of a united Europe and the world. The study programmes of the Study Field are aimed at the in-depth acquisition of knowledge in labour protection, health promotion, occupational health, human factors, ergonomics, and occupational safety, with the aim of providing both broad and detailed in-depth knowledge in these areas, which is the basis for the successful development and achievement of the objectives of the implemented Study Field.

Study field objectives:

1. To educate students in a broad field of occupational safety and health, ensuring a high-quality study process, following best practices in Latvia, Europe and worldwide.
2. To promote scientific and applied research in the fields of internal safety, civil and occupational health, including health promotion, occupational health, human factors/ergonomics and safety at work and related fields.

3. To strengthen the study programmes of the field of study by developing and improving the quality of the content of the study courses and their relevance to the requirements of the modern labour market.
4. To participate in the development of legislation of the Republic of Latvia and the EU on occupational health, ergonomics, health promotion and occupational health issues, in cooperation with the relevant ministries and other institutions.
5. To promote the development of the practical and scientific discipline of labour protection as a separate branch of ergonomics science in Latvia.
6. To develop the occupational safety profession at various levels and to raise the prestige of the profession.
7. Promote cooperation between academic, governmental and non-governmental organisations working on labour protection issues.
8. To ensure that graduates of study programmes in the field of study are able to responsibly and safely select and use information technologies for their work, research and lifelong learning, as well as for the acquisition, creation and sharing of digital content.
9. To continue and develop new cooperation with other Latvian and international higher education institutions in the field of occupational safety and health, including mobility of academic staff and students, exchange of experience, internships, etc.

The Study Field "Internal Security and Civil Defence" implemented by the Faculty of Chemistry of the University of Latvia meets the requirements of the common educational area in the EU, and the further development of the study field is directly related to the further implementation of an education system of even higher quality and in line with the European educational area. The programmes of the field of study "Internal Security and Civil Defence" implement the main theses of the Bologna Declaration:

1. graduates receive a diploma with comparable academic degrees in Europe and a Diploma Supplement that meets the requirements of the Common European Diploma Supplement;
2. the degree is obtained in a two-cycle system, with the first (Bachelor's) degree already being transferable to the European labour market, as evidenced by graduates' ability to find jobs in other EU countries;
3. a system of ECTS points is in place for the accumulation of credits, with each course description in the programmes of study of the field of study containing a volume rating in ECTS points;
4. there is real mobility of students, staff and researchers, as evidenced by student, faculty and researcher exchanges with European universities, as well as virtual courses and conferences attended.

The field of study has an English programme (at PhD level) which is open to international students, and many courses undoubtedly value various European and international aspects. In the programmes in Latvian, it is foreseen to integrate study courses in English in 20% of the total credits of the programme in the next accreditation period of the field of study. The study courses in English in the Bachelor's and Master's programmes of the Short-cycle professional higher education study program "labour protection" have so far been hampered by the specificities of the Latvian labour market and the legal framework (laws and regulations) included, as many study courses were difficult to align with study courses taken at other higher education institutions. The launch of the PhD programme creates new preconditions for the internationalisation of the field of study in the coming years.

The quality and market competitiveness of study programmes is reflected in the stable number of students. Taking into account the goals and objectives of the Bologna Declaration, the study model implemented by the Faculty of Chemistry of the University of Latvia offers a wide range of

opportunities, such as the possibility to choose and participate in mobility programmes, as well as the possibility to choose to continue studies in higher-level study programmes at EU and European Economic Area universities.

Students of the Field have the possibility to study individual study modules, study courses or internships (fully or partially) in study programmes of other foreign universities or colleges, there are cooperation agreements on mobility opportunities and on exchange of academic staff. The Faculty of Chemistry provides ERASMUS+ mobility, ERASMUS+ global mobility, CAMPUS EUROPAE, ISEP, as well as students, academic and administrative staff can exchange experiences within the framework of bilateral cooperation agreements. In the academic year 2021/2022, the University of Latvia signed more than 200 ERASMUS+ cooperation agreements with universities across Europe, as well as in EEA countries and Campus Europe cooperation agreements with European Universities. Students can also spend a semester at a US university as part of an ISEP exchange programme, as well as at a LU partner university under a bilateral agreement.

Cooperation agreements have been concluded with Estonian University of Life Sciences (Estonia), as well as with Penn State University (USA) within Erasmus+ global mobility, University of Valencia (Spain) and Tallinn University of Technology (Taltech), Estonia. This makes a significant contribution to attracting foreign guest lecturers (several times the world's leading ergonomists and occupational health specialists have visited the University of Latvia to give guest lectures for scientific discussions and share their experience in the study programmes implemented in the field of study (more detailed examples can be found in the self-assessment reports of each study programme).

Cooperation agreements and memoranda of cooperation have also been concluded with Latvian institutions, e.g. Latvian Ergonomics Society, Business Efficiency Association, leading Latvian business organisations for student placements (see Annex 10 for a list of cooperation). E.g. students had the opportunity to participate in educational events organised by the LEB during the reporting period (2016, 2018, 2021 etc.) as well as an interdisciplinary conference "ERGONOMICS AT WORK - A CHALLENGE FOR HEALTH PROMOTION" (only in Latvian) was held on 5 October 2018 at the Academic Centre for Natural Sciences, Jelgavas Str. 1. The event was organised within the framework of the University of Latvia study programmes "Work Environment Protection and Expertise" and "Optometry" as well as the project "Development of the Research Environment for Vision Ergonomics". The event was organised in the framework of the European Ergonomics Month and dedicated to the centenary of Latvia in cooperation with the Latvian Ergonomics Society and the Latvian Association of Optometrists and Opticians. The event was attended by the Director of the State Labour Inspectorate, as well as representatives of several leading organisations, such as Bayer, KNAUF, JSC "Latvijas Valsts meži", Ventspils Nafta terminmāls, etc. The conference included workshops with practical involvement of participants, e.g. "Ergonomics at Work, Basic Principles and Health Promotion" - a workshop led by certified European ergonomist and occupational health doctor Ž. Roja, Dr.med. and certified physiotherapist I. Ikstens, Mg.sc.; participants had the opportunity to assess their near vision function under the guidance of optometrists (Laboratory 427). The participation of students in such conferences contributes to a better understanding of current trends and practical skills in the labour market and occupational safety.

Every year students have the opportunity to participate in the conference section "Human Factors, Ergonomics and Working Environment, Industrial Engineering" organised by the field of study within the framework of the LU Scientific Conference. In the academic year 2020/2021 students participated in the seminars organised by Online and in the LU conference section. LEB members (e.g. R. Čapla, D. Garais, A. Freidenfelds, etc.) are actively involved in the education of students by giving guest lectures and practical classes in person and remotely. The agreement signed with RTU on cooperation in research, organisation of guest lecturers and taking over students in case of

liquidation of study programmes provides an opportunity to attract guest lecturers from RTU every year (e.g. for several years (2016, 2019, 2020, 2022) RTU lecturer Inese Vilcāne has given a series of guest lectures on Legal Aspects of Labour Protection).

The study direction implemented by the Faculty of Chemistry of the University of Latvia corresponds to the mission of the University of Latvia, academic traditions, and labour market demand for professionalisation of studies, awarding professional qualifications together with academic degrees.

The study direction has a long-standing successful cooperation with occupational health and health promotion study programmes in other Latvian universities (RTU - Ž. Roja, H. Kalķis, LLU - Ž. Roja, RSU - Ž. Roja, H. Kalķis, DU- Ž. Roja, H. Kalķis, etc.):

- Professors from the field of study and professors from other higher education institutions collaborate on professorial and dissertation councils;
- Professors of the field of study and professors of other higher education institutions cooperate in the final examination committees of bachelor study programmes;
- Professors of the field of study and other higher education institutions, doctoral students and master students cooperate in international scientific projects, scientific and academic conferences, seminars, scientific publications and textbooks;
- Professors and associate professors of the field of study provide advice to lecturers, doctoral students and postgraduate students from other universities;
- Students of the field of study have the opportunity to study courses of interest at other universities for Free Elective (C) courses.

This allows us to keep abreast of current trends in local and foreign universities in order to improve the content of the study programmes included in the field of study.

In the organisation of the Study Field, emphasis is placed on the involvement of industry representatives in the study process, various guest lectures are regularly held in the study direction programmes, which are led by leading industry practitioners, for example, in recent years, the Study Field programmes have included Romāns Putāns, PhD (Latvian Ergonomics Society), among the lecturers and practitioners, Sandis Babris (Plant Director, Brabantia Latvia Ltd), Agnis Beiers (Schwenk, Latvia), Dagnis Garais (Industry Expert, Ventspils Nafta Termināls representative), Andis Zanders (Leading Personal Protective Equipment Expert in Latvia, Grif Ltd), Jevgēnijs Oboļēvičs (Head of the Work Protection Association), etc. Several guest lecturers have been given lectures on the following topics: accident investigation at work, safety culture, hazardous equipment, personal protective equipment at work, work in confined spaces, Students are often involved in practical classes at companies on site, e.g. SIA Brabantia Latvija, Stora Enso Paskaging, SIA Kate and Schwenk Latvija, etc. During the Covid-19 pandemic, students also participated in a number of practical training sessions remotely, as organisations provided site visits and analysis under real working conditions.

A number of study courses are taught by practitioners, thus ensuring both the quality and relevance of the course content. For example, prof. Henrijs Kaļķis, doc. Ingars Reinholds, lect. Dagnis Garais, etc. This choice of teaching staff ensures meaningful synergy, cooperation and partnership between the academic and professional environment, which is appreciated by the students. Classes are held not only in the classrooms of the University, but also in public trainings in production and service organisations. During the pandemic, opportunities were found to visit production sites virtually and to learn in depth about processes, risks in the working environment and the approach to implementing preventive measures. In each study programme, the involvement of practitioners and industry specialists in the implementation of the study process depends on the specifics and implementation of the study programme. Students also regularly visit

companies with which they maintain regular contacts, including in the provision of student placements. The opportunities of the LU Foundation can be and are used to support students (more info at https://www.fonds.lv/).

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.

The assessment of strengths, weaknesses (see Table 2.1.2.1), opportunities and threats (SWOT analysis) of the field of study has been carried out by analysing:

- the content, organisation and practical delivery of specific study programmes,
- information from employers, students, publications, feedback,
- suggestions for improving the study process made by students,
- the process of recruitment and renewal of academic staff,
- sources of funding,
- material, technical and methodological support,
- possibilities for further development of study programmes.

Table 2.1.2.1.

SWOT Analysis of the Study Field

INTERNAL ENVIRONMENT	
Strengths:	**Weaknesses:**

- UL`s prestige internationally
- A quality and prestigious education and an internationally recognised diploma for our times;
- Original study programmes with an interdisciplinary character; a versatile and wide range of study courses
- Full study cycle
- High labour market demand;
- Motivated and qualified academic staff with extensive practical and teaching experience;
- Stable number of matriculated students each year;
- State-funded budget places (Master's programme), various scholarship programmes and support grants available (especially for PhD students);
- Students have the opportunity to influence the study process, its development and improvement, due to the democratic relationship between academic staff and students;
- High recognition and good reputation among employers;
- Opportunities for students and academic staff to participate in international scientific conferences and seminars;
- Use of the e-learning website in the study process;
- The opportunity to carry out research and practical work already during the study programmes;
- The amount of practical work during the internship allows to acquire sufficient competences, skills and competences;
- Long-standing cooperation with international organisations in the field of occupational safety and ergonomics;
- The necessary infrastructure, equipment and technical facilities for the studies are provided at the Academic Centre for Life Sciences of the University of Applied Sciences;
- Business cooperation with employers and their associations, trade unions, cooperation with major research centres and manufacturers/employers in Latvia;
- Opportunities to use employers' facilities;
- Successful cooperation with entrepreneurs through practical guest lectures and seminars in the organisations;
- Business cooperation with other related programmes at the University of Latvia, RTU, RSU, etc;
- Study programmes are in line with the recommendations of European countries on study content;
- An occupational safety and health room (Room 621, Jelgavas iela 1);
- Continuous improvement of teaching resources in all study courses;
- Insufficient prior knowledge of students in some study courses;
- Lack of projects and funding in the field of occupational safety and health;
- Insufficient attraction of additional financial resources necessary for the study process;
- Insufficient marketing activities for the study opportunities of the programme;
- The funds that the Faculty of Chemistry of the University of Latvia generates for its activities (per student) are small in comparison with analogous funding in European universities.

EXTERNAL ENVIRONMENT

Opportunities:

- Developing greater international cooperation on internal security and civil protection, including in scientific research;
- The possibility to improve the physical facilities with ERDF and ESF funding;
- More development of research work by involving students in scientific research projects;
- Improvement of study programmes in cooperation with foreign partners and employers in Latvia;
- Increased involvement of guest lecturers in the implementation of certain study courses;
- Greater involvement of PhD students and young researchers in the teaching process;
- Opportunities for graduates of study programmes to enter the labour market abroad.

Threats:

- Declining student numbers due to the demographic and economic situation in Latvia, Europe and the world;
- Migration of population abroad, increasing competition in the higher education system;
- Changes in government policy (change of priority study programmes);
- Increasing costs of studies, especially in case of worsening social and economic conditions;
- Lack of a sustainable strategy in Latvian higher education policy;
- Reduction of funding for research at national level, which reduces the motivation to study for Masters and PhD.

Comparing the strengths and weaknesses of the Study Field at the University of Latvia, it can be concluded that the strengths are predominant, and the potential of the study field in the future is to further strengthen and develop the strengths of the study field, as well as to eliminate its weaknesses as far as possible and, avoiding threats, to use its development opportunities to provide the best education in occupational health and ergonomics not only in Latvia, but also in other Baltic countries.

LU is a prestigious academic and professional higher education and scientific institution of the Republic of Latvia, which combines and develops study and scientific research potential in the field of natural, technical, humanities and social sciences and this is reflected in the annual international university rankings (e.g. The Times Higher Education World University Rankings (THE), Emerging Europe and Central Asia University Rankings 2020, International Graduate Employment Ranking.

In the light of the aims and objectives of the Bologna Declaration, the study model of the programme offers a wide range of opportunities, such as the possibility to choose and participate in mobility programmes. The Study Field offers and actively exploits international mobility opportunities for academic staff in study programmes at all levels. Statistics on inbound and outbound mobility of teaching staff are attached in Annex 13.

The study model of the Study Field also offers the possibility to choose to continue studies in higher level study programmes at EU and European Economic Area universities

The study programmes of the field of study offer a wide range of study courses, according to the specifics of the programme (detailed description is presented in the sections of the specific programmes). The interdisciplinarity is particularly characteristic of the doctoral programme "Human Factors, Occupational Safety and Health", which will start in the academic year 2022/2023.

The study area develops and improves its academic staff year after year. In the period since the previous accreditation, the Study Field has undergone qualitative changes in the structure of the academic staff (see Annex 7 for the CVs of the teaching staff).

To improve their professional qualifications, staff members took part in various seminars and training courses. For example, in the continuing education programmes of the University of Latvia, Open Minded courses, courses of other institutions, qualification improvement events organised by

non-governmental organisations (e.g. Latvian Ergonomics Society, Business Efficiency Association, Association of Occupational Physicians, etc.), participate in local and international conferences. The following opportunities are also offered for further qualification: academic (creative) holidays (H. Kalķis interned at Penn State University in the USA - 2014/2015; 2018/2019 and 2022), doctoral studies, lectures at foreign universities (Ž. Roja, A. Arāja, J. Logins, H. Kalķis, I. Reinholds, etc.), participation in expert groups on occupational safety and health issues (e.g. Ž. Roja - AIC expert, LSC expert group, etc., H. Kalķis - AIC expert group, LZP expert group, the prestigious Fulbright Evaluation Commission of the US Embassy, Baltic American Freedom Foundation (BAFF) expert group, etc.), etc.

Lecturers are opinion leaders and thought leaders in the field of occupational health and ergonomics in Latvia. For example, prof. Henrijs Kaļķis and assoc. prof. Ženija Roja have contributed several articles to the collection of articles of the National Library of Latvia:

1. Kaļķis. Ž. Roja. Ergonomics. National Encyclopaedia of Latvia: https://enciklopedija.lv/skirklis/29276 (Only in Latvian)
2. Kaļķis. Ž. Roja. Labour protection. National Encyclopaedia of Latvia:: https://enciklopedija.lv/skirklis/59673-darba-aizsardz%C4%ABba (Only in Latvian)
3. Kaļķis. Ž. Roja. Labour Protection in Latvia. National Encyclopaedia of Latvia:: https://enciklopedija.lv/skirklis/59673-darba-aizsardz%C4%ABba (Only in Latvian)
4. Kaļķis. Ž. Roja. Cognitive ergonomics. https://enciklopedija.lv/skirklis/113977-kognit%C4%ABv%C4%81-ergonomika (Only in Latvian)
5. Kaļķis. Ž. Roja. Organisational ergonomics. https://enciklopedija.lv/skirklis/114265-organizatorisk%C4%81-ergonomika (Only in Latvian)
6. Kaļķis. Ž. Roja. Load ergonomics. https://enciklopedija.lv/skirklis/114562-slodzes-ergonomika (Only in Latvian)

Several articles have been published in the media to inform the public and promote study programmes, such as:

- Kaļķis. The importance of the human factor in the work process will only increase, regardless of technological developments. http://www.aprinkis.lv/index.php/sabiedriba/dzive-un-ticiba/33893-lu-profesors-neatkarigi-no-tehnologiju-attistibas-cilvekfaktora-nozime-darba-procesa-tikai-pieaugs (Only in Latvian)
- Kaļķis. A new doctoral study programme in occupational safety and health is launched at the University of Latvia. https://lvportals.lv/dienaskartiba/339886-latvijas-universitate-izveidota-jauna-doktora-studiju-programma-darba-drosiba-un-arodveseliba-2022 (Only in Latvian)
- Daily overview. New doctoral programme in occupational and occupational health at the University of Latvia. https://naba.lsm.lv/lv/raksts/dienas-apskats-kultura-zinatne-izglitiba-un-vide/dienas-apskats.-lu-izveidota-jauna-doktora-studiju-programma-ros.a158993/ (Only in Latvian)
- This year the University of Latvia offers two new study programmes. https://dienaszinas.lv/sogad-latvijas-universitate-studetgribetajiem-piedava-divas-jaunas-studiju-programmas/ (Only in Latvian)

https://www.tvnet.lv/7498025/latvijas-universitate-izveidota-jauna-doktora-studiju-programma-darba-drosiba-un-arodveseliba (Only in Latvian)

- Kaļķis. Despite technology, the importance of the human factor in the work process will only increase. https://ir.lv/2022/06/21/neraugoties-uz-tehnologijam-cilvekfaktora-nozime-darba-procesa-tikai

-pieaugs/ (Only in Latvian)

- Science for Latvia 2022 (Prof. H. Kalķis - video story):https://www.youtube.com/watch?v=Vu_qgSg2APw (Only in Latvian)
- Morning Panorama story 2020 (Prof. H. Kalķis - Exploring the impact of ergonomics on business): https://www.youtube.com/watch?v=i9XXqqgywqc&t=4s (Only in Latvian)

One of the strengths of the programme is the involvement of students and employers in the improvement of the study process at the level of the Study Field and programmes, as well as cooperation with professional organisations of employers. There is active cooperation with LEC, Latvian Chamber of Commerce and Industry, Business Efficiency Association, Latvian Ergonomics Society, Association of Occupational Safety Specialists, etc. For example, a representative of the LEC participates in the work of final thesis defence committees, and representatives of the Business Efficiency Association and the Latvian Ergonomics Society represent the Study Field Council.

Cooperation with employers is important in providing internships for students. Examples include the memorandums signed with the Business Efficiency Association, the Latvian Ergonomics Society, which provide access to industry organisations and students to effectively find internships.

Such cooperation contributes to further development and updating of the content and implementation of study programmes in line with national priorities and employers' requirements. The implementation of the study field is supported by the infrastructure meeting the modern requirements, the use of modern information technologies and methods, adequate methodological support, wide availability of resources for the implementation of the study process, rich resources of the library and subscribed databases.

The study field wishes to develop even closer cooperation with employers in various sectors in order to provide young people with the opportunity to acquire the skills they lack in cooperation with representatives of the business environment. Possible future forms of cooperation have been discussed in the meetings of the study area's councils:

- working with industry conference organisers to give students the opportunity to attend industry exhibitions and conferences free of charge to gain an insight into the specifics and working principles of the industry;
- Master's student consultancy project team: employers can apply for a consultancy project in which students carry out market research and develop a strategy for a real-life occupational health and safety issue within a limited timeframe;
- closer cooperation with the LEC and LTRK, as well as sector associations, using the organisations' internal information channels to reach out to employers and receive feedback;
- forming student interest groups in different sectors, involving a practitioner from the sector as a mentor to provide support in understanding the specifics of the sector, developing practical work for studies;
- support students' involvement in part-time work by adapting class times and module timetables, especially for the Bachelor programme.

One of the options for the future of the field of study: attracting foreign students to the PhD programme. Marketing activities will be actively carried out by visiting international higher education fairs, sending information to partner universities about the study offer for foreign students, promoting cooperation with existing LU recruitment agents, as well as establishing new contacts. This is particularly important for the implementation of the new PhD programme in English, which is planned to start in the academic year 2023/2024.

The threats related to the demographic situation in the country or the reluctance of many secondary school students to continue their studies cannot be directly addressed by universities

("Social and Economic Living Conditions of Students in Latvia 2017" (Only in Latvian)). This largely depends on the overall economic situation in the country - as the economic situation improves and wages and people's ability to pay rise. Emigration is likely to decrease and other demographic indicators improve, and secondary school graduates will not be forced to start working immediately after their studies, but will be able to continue their studies by improving their knowledge and acquiring new skills. Another major threat to the quality of studies is the employment of students during their studies, which is also largely due to the economic situation and the lack of credit facilities for students, who have to work to cover their tuition fees and daily expenses. On the positive side, as regards the threat of limited credit opportunities for students, from April 2020 students will no longer need an additional guarantor to obtain a state-guaranteed study loan (100% state-guaranteed), which will considerably facilitate access to a study loan and widen the pool of potential borrowers. This change in legislation will be developed at the suggestion of the Latvian Students' Association. Due to low solvency and limited student credit, the number of secondary school graduates who choose to work rather than continue their studies at university is increasing. Of course, the state should also take informative measures to encourage secondary school graduates to continue their studies at universities and to contribute to their long-term development.

From the point of view of the LU, the threat also includes the possibility of obtaining free education abroad, which is related to the aspects highlighted above (economic situation, ability of people to pay, inability to finance studies). According to the Ministry of Foreign Affairs of the Republic of Latvia, Latvian citizens have ample opportunities to study free of charge or at reduced fees in the EU Member States: the Czech Republic, Denmark, France, Greece, Norway and Finland. https://www.mfa.gov.lv

In addition, the development of the field is hampered by the different levels of knowledge of matriculated students, the lack of budget places, especially in the short-cycle "OP", bachelor and doctoral programmes, as well as the principles of financing higher education in the country and the low priority given to social sciences studies. To address this situation and the issue of underfunding, a national debate is needed.

The prospective evaluation of programmes of a field of study is determined by:

- The need for academic and professional higher education in occupational safety and ergonomics in various positions at national, company, and institutional levels.
- The possibility for students to study not only the short-cycle professional higher education study program "Labour protection" and Bachelor's degree programme, but also the Master's and Doctoral degree programmes, which allows for a sequential and efficient continuation of the study process (a complete study cycle is ensured).
- Uniqueness of the study programmes, providing broader knowledge and skills needed in the labour market.
- The widest range of opportunities for students (academic staff, international cooperation, guest lecturers, library resources, internships, participation in research projects, etc.), given that LU is one of the largest universities in the Baltic States.

The future development of the field of study is planned taking into account the needs of the labour market for specialists with integrated knowledge, skills, and competences. The competences that employers consider most important are critical thinking, cooperation, professionalism and communication skills. (National Association of Colleges and Employers. Job Outlook 2018). The study programme and its management have a long-standing successful cooperation with the professional organisations of employers, and by maintaining a two-way feedback loop, the faculty receives valuable recommendations from employers' organisations for the improvement of study

programmes and their content. Overall, the study programme is fully in line with the mission, academic traditions and labour market demand for professionalisation of studies and integration with practice.

Conclusion: *the leading strengths are the opportunities for students to study in a modern environment, under the guidance of motivated and qualified academic staff with extensive practical and teaching experience. Opportunities: development of more international cooperation in the field of internal security and civil protection, including in scientific research. Weaknesses: attraction of projects and funding in the field of occupational safety and health and insufficient marketing activities for study opportunities in the study programmes. Increasing costs of studies, especially in the event of worsening social and economic conditions. The lack of a sustainable strategy in Latvian higher education policy is a major threat; the reduction of funding at national level for research, which reduces the motivation to study Master's programmes.*

Significant actions taken during the reporting period to address weaknesses and threats:

1. A detailed development plan for the Study Field "Internal Security and Civil Defence" has been developed: 2021-2027 (attached in Annex 3). The plan includes the objectives of the study field and their correspondence to the development directions and strategic objectives of the LU, as well as the development plan of the Study Field from 2021 to 2027 with specific sub-objectives.
2. Following the results of the multi-year mapping of study programmes, the course descriptions and course outcomes of all study programmes have been improved. Significant work has been invested in the mapping of study programmes, which helps to understand the interactions between study courses and their relationship to programme outcomes. This helps to develop more concrete actions to maintain strengths and reduce weaknesses, as well as more concrete actions to seize opportunities and address threats. For more detailed information and examples, please refer to the self-assessment report of each study programme.
3. Developed closer cooperation between study programme directors and course lecturers in the process of updating study courses. Course lecturers were regularly informed of the need to review the relevance of course outcomes to the objectives and outcomes of the study programme at the beginning and end of each academic year. For more detailed information and examples, please refer to the self-assessment report of each study programme.
4. Each year during the reporting period, more technology has been used to support the learning process, offering students the opportunity to participate in study courses remotely, combining modern IT solutions to study courses. For more detailed information and examples, please refer to the self-evaluation report of each study programme.
5. During the reporting period, the academic staff has carried out peer-observation in order to address weaknesses in the improvement of the study process.
6. Continued involvement of students and graduates in the implementation of study programmes, e.g. through guest lectures and lecturing. For more detailed information and examples, please refer to the self-evaluation report of each study programme.

The planned improvements are described in detail in the Study Field Development Plan (Annex 3), while the Study Field plans the following additional activities in the next reporting period:

- It is planned to raise the prestige of vocational education in occupational safety and health by involving employers more in the process of developing the content of vocational education, designing new courses, and updating new occupational standards relevant to the field of study (e.g. ergonomist, etc.).
- Due to the impact of the development of science and technology on the content and quality

of higher education, it is planned to increase the number of student internships by selecting organisations and production sites in sectors that are a priority in Latvia, such as the use of local resources (timber, etc.), innovative materials and nanotechnologies (polymer nano-composite processing, etc.).
- It is planned to increase the involvement of thesis topics in the expertise of work environment risks in sectors defined as hazardous in Latvia with a diversity of risk factors (wood processing, construction, metalworking, etc.).
- Preparation of new textbooks and methodological materials (at least 4 in the next 6 years) on the identification and assessment of workplace risks, taking into account the latest scientific and practical knowledge worldwide.
- Organisation of international cooperation with the Institute of Technology of the Estonian University of Life Sciences in the field of ergonomics and occupational safety through the Erasmus exchange programme for higher education students and other opportunities.
- Continuous professional development of academic staff, which contributes to the quality of their work and to their multifaceted activity in scientific and academic activities (participation in annual and international conferences of LU, RSU with papers or posters, participation in seminars and courses organised by professional institutions).
- It is planned to develop and intensify activities through the mass media system (advertising, employer and public information, etc.), which improve student attraction.
- Inclusion of foreign guest lecturers from EU and non-EU universities in the implementation of the Study Programme (teaching of special courses) - at least 5 within six years.
- To organise the 3rd International Conference on Occupational Safety and Ergonomics within the Programme within three years, in cooperation between the Centre for Ergonomic Research of the Faculty of Science and the Latvian Ergonomics Society (the 1st conference in this field "Contemporary Ergonomics and Business" was organised in 2011; the 2nd International Conference "Ergonomics at Work - a Challenge for Health Promotion" was organised in 2018).

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.

Collegiate responsibility for the administration of the Study Field lies with the LU decision-making bodies – the Senate, the LU Study Programme Quality Assessment Commission (hereinafter – StP QAC) (headed by vice rectors), respective faculty councils and Study Field councils, which evaluate study quality and decide on study quality assurance measures.

The governance of the LU is responsible for the study quality assurance, delegating responsibility for the development and functioning of the study quality assurance system to the Academic Department.

The responsibility for the development of the Study Field and quality of implemented study programmes lies with the head of the Study Field and dean, study programme directors, and sub-programme directors.

Each lecturer is responsible for the quality of the content and implementation of the study course, research activity and professional development.

The students' responsibility is defined in their rights and obligations to promote the achievement of the LU goals and excellence in studies, participating in the LU collegial institutions and regularly expressing their opinion in student surveys

See Annex 4 for the governance scheme of the Study Field of the LU and the study programmes included therein.

The Regulations on the University of Latvia Study Field Management (the LU Senate Decision No 70 of 27.01.2020) determine the procedure for the management, quality assurance and development of study fields at the LU; the functions and operating principles of the respective Study Field Council; qualification requirements, duties, responsibilities, and rights of the head of the study field, study programme director, and the head of the sub-programme of the respective study field.

Each LU study programme has **a study programme director** who directs the development and implementation of the study programme. The director of the study programme is approved by the Senate on the proposal of the respective Faculty Council. The study programme director is a member of the Study Field Council of the respective branches of science and coordinates their activities with the respective Head of the Study Field and Study Field Council. The study programme director is accountable for their activities to the dean of the faculty. Responsibilities of the study programme directors include ensuring a well-functioning, sustainable operation of the study programme in accordance with the procedures specified by the LU and other responsibilities. If the study programme covers several sub-programmes providing a specific qualification or specialisation, then each subprogramme may have their own head. In this case, part of the study programme director's duties is performed by the head of the sub-programme. The **head of the sub-programme** is approved by the respective Faculty Council. The head of the sub-programme is accountable for their activities to the study programme director.

The competence of the head of the study field is to ensure the management and development of the study field. The head of the study field is approved by the Rector on the proposal of the dean of the respective faculty. The head of the study field is accountable to the respective Study Field Council and the dean. The heads of study fields, in cooperation with the study programme directors and the director of the LU Regional Centre, in cases when the study programmes included in the study field are implemented in the LU regional branches ensure the revision, development planning and implementation of study programmes included in the study field. Heads of study fields organise the work of study field councils, as well as regularly organise the development of annual study field reports and their promotion for review and approval to the respective Study Field Council and respective Faculty Council. Heads of study fields in cooperation with the study programme directors and the Academic Department of the LU ensure the accreditation and re-accreditation of the study field and perform other duties. The Head of the Study Field may have deputies.

The Study Field Council is a collegial study field management body, which supervises academic, professional (including residency) and doctoral study programmes of all levels within one study field. The participants of the respective Study Field Council is the head of the study field and its deputy, if there is one, the study programme directors and sub-programme directors relevant to the study field, the representatives of the students in respective programmes (not less than 20% of the composition of the Study Field Council, promoting the representation of all levels of study programmes, as well as the largest possible number of study programmes, nominated by the students self-government), representatives of employers and cooperation partners of the study field (candidates are nominated by the heads of structural units, heads of study fields, study programme directors and heads of sub-programmes). The composition of the Study Field Council

may be supplemented with graduates of the respective study field programme who are not involved in the implementation of said study field, as well as with professors, associate professors, and other qualified specialists (candidates are nominated by the heads of structural units, heads of study fields and study programme directors). The Study Field Council approves the development plan of the study field, evaluate the concepts of new study programmes, changes in study programmes, annual self-assessment reports of the study field, licensing and accreditation applications and related documentation.

Faculty Councils, consisting of representatives of the academic and general staff, elected for three years, and student representatives, who make up at least 20% of the councillors, decide on academic, economic, financial, and other activities of the faculty that are within the competence of the faculty or may be passed on to the Senate.

The Study Programme Quality Assessment Commission (SP QAC) assesses the performance of LU study fields and study programmes, as well as makes proposals to the respective Faculty Council and the LU governance on the further development of the programmes. SP QAC reviews and provides opinions on study programmes, including, evaluates applications of new study programme concepts, new study programmes and closure proposals, significant changes in accredited study fields that require a decision of the SP QAC, as well as applications for new study modules and sub-programmes. When evaluating the concepts of new study programmes, annual reports of study programmes and study fields, the SP QAC is guided by the opinion of anonymous, independent experts. The SP QAC consists of vice-rectors, the Chairman of the Academic Commission of the Senate or his authorised representative, the Director of the Academic Department and representatives, the Representative of the Department of Study Service, the Internal Auditor, the Head of Quality, representative of the Library of the LU, a representative delegated by the Student's Council (hereinafter – SC) and a representative delegated by the LU Alumni Club.

Starting the implementation of *the LU Strategy 2021-2027*, based on the efficiency audit of the administrative structural units performed in 2021, the LU administration was significantly reorganised in November of 2021, thus strengthening the strategic and quality management functions in the structural units of the administrative structural units. One of the most significant changes is the integration of the Study Department of the University of Latvia and the Department of Science of the University of Latvia, forming the Academic Department, thus strengthening the unity of higher education and science.

The LU Administration has the following units: Academic Department, Department of Study Service, Department of Communication, Legal Department, Department of Human Resources, Department of Information Technology, Department of Finance and Accounting, Document Management Division, Infrastructure Management Division, Real Estate Revenue Division, Institutional Data Analysis Centre, Project Support Centre, Academic Centre Development programme, Study Development and Management Improvement Programme. The Chancellor of the LU, the internal auditor, the quality manager, the head of the work safety system, and the information technology security manager also operate as a part of the administration. The study process is also supported by the main structural units under the Head of the Administration – the Culture Centre, Sports Centre and the Pre-study Training, and Dormitory Service Centre.

In the LU Administration **the Academic Department** has the key role in the management of the field of study. The Academic Department consists of the Academic Policy Division, the Science Projects Division, the Study Quality Assurance Division, and the Lifelong Learning Division. The competence of the Academic Department is to monitor the requirements of the regulatory enactments in force in the Republic of Latvia and changes therein, national and European Union

(hereinafter – EU) development policy documents, as well as standards and good practices in the field of academic activities and lifelong learning. The Academic Department ensures the LU functional strategy, development of regulations and supervision of their implementation in these fields corresponding to the outer regulations and to the LU Strategy; ensures the development, implementation of studies, as well as scientific quality assurance systems (or processes)' monitoring and continuous improvement of their implementation; ensures regular review of academic and lifelong learning processes and risks; regular review of methods and procedures; identifies and ensures necessary control and preventive measures in accordance with the practice implemented by the LU; ensures analytical identification of the results of academic activities and lifelong learning and the opportunities for their improvement, etc.. The Division of Study Quality Assurance monitors the compliance of all study levels with internal regulations; it coordinates the medium-term development plan of studies in cooperation with faculties; manages its implementation; monitors and provides methodological support in developing new study programmes and implementing and improving existing programmes; organises internal quality assurance processes in studies; organises and coordinates external quality assessment; ensures centralised administration of doctoral student admission, doctoral studies and promotion process; provides support in the process of implementation and improvement of studies at all levels; evaluates study programme results and competitiveness; and participates in resource evaluation.

The Department of Study Service consists of the Academic Services Division, the Admissions Division and the Mobility Division, which are competent to organise and ensure the matriculation and exmatriculation of national and international students; the circulation of study documents and their registration; maintain the graduation documentation (qualification) register, including diplomas and graduates register; to provide students with social, cultural and other support functions, as well as to provide consultations and information to students on social security; to inform potential applicants and candidates about the study programmes, study process and study organisation, as well as to ensure the administration and implementation of mobility programmes, etc.

The Head of the LU Quality Control and the Internal Auditor also participate in the development, evaluation, and improvement of the study quality management system.

According to the new *Regulations of the Administration of the University of Latvia*, the Department of Human Resources established **the Department of Academic Competence Development of the University of Latvia**, the functions of which will include the development and improvement of personnel development, career and succession planning systems, the implementation of personnel development measures, as well as the methodological management of academic personnel management issues by LU departments.

Cooperation with the **student self-government of the faculty**, which represents the interests of students in the operation of the faculty, including solving issues of the academic, social, and cultural environment, plays an important role in the management of studies. The members of the student self-government are represented in **the LU Students' Council**, thus participating in the management of the LU.

Technical support staff are important in the study process, providing the necessary support to both students and academic staff in a timely manner, e.g. reproduction of handouts, notification of students in case of need, as well as on-site and remote technical assistance (MS TEAMS, ZOOM, etc.). The IT specialists are very supportive and can be reached whenever help is needed, including Saturday lectures. The quality of studies is also ensured by the regular development of individual study courses, using the latest teaching aids and books prepared by the academic staff involved in the study programme. For example, the Master's study course "Work Environment Expertise" has

been improved with the latest worldwide popular methods of work environment risk assessment, risk matrices and computer programs, which are discussed in Prof. V. Kalķis monograph "Methods of Work Environment Risk Assessment" (Riga, Latvian Educational Foundation, 2008, 242 pp.); Skalberga I., Kaļķis H., Roja Ž. LEAN organised workplace: 6S practical advice (Rīga: Latvia, Ergonomics society, 2022, 96pp. (ISBN: 978-9934-89-662-0)); Babris S., Kaļķis H., Pikss M., Sorokins V. Practical LEAN. (Jelgava: Jelgava Printing house, 2021, 321 pp.); Babris S., Kaļķis H., Mūrnieks J., Piekuss U. LEAN Solutions for more efficient business. (Rīga: Ltd "Madris", 2016, 190. pp.) etc. The courses "Occupational Health and Fundamentals of Occupational Medicine" and "Fundamentals of Ergonomics" have been developed using the expertise of assoc. prof. Ž. Rojas' books "Occupational Health, Safety and Civil Protection" (Riga, Latvian Academy of Business and Management, 2008, 277 pp.), "Occupational Health and Safety" (Riga, Latvian Academy of Business and Management, 2007, 293 pp.), "Ergonomics basics" (Riga, SIA Drukātava, 2008, 195 pp.) and "Stress and violence at work" (Riga, Latvian Ergonomics Society, 2006, 49 pp.); "Work-related musculoskeletal and connective tissue disorders. Ergonomic solutions." (Riga: Latvian Ergonomics Society, 2016, 18 p.); Roja Ž., Kaļķis H. (2022) Ergonomics at work with digital devices. Practical Tips (Riga: Latvian Ergonomics Society, 2022, p. 44 (ISBN: 978-9934-89-661-3)); Goonetilleke R.S., Xiong S., Kalkis H., Roja Z., Karwowski W., Murata A. (Eds.) Advances in Physical, Social & Occupational Ergonomics (USA: Springer, Cham, 2021, XVII, 521 p), etc. More detailed information is available in the course descriptions and in the self-evaluation report of each programme included in the field of study.

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.

Student admission procedures and requirements:

- Terms of Admission at University of Latvia
- Terms of Admission and Criteria for Undergraduate (available only in Latvian)
- Terms of Admission and Criteria for Postgraduate Studies (available only in Latvian)
- Terms of Admission and Criteria for Doctoral Studies
- The Procedures for the Initiation of Studies in Subsequent Study Stages at the University of Latvia (available only in Latvian)

Normative regulations governing recognition procedures:

- Regulations on the recognition of knowledge, skills, competence acquired outside of formal education or in professional experience, recognition of study results achieved in the previous education, and referencing of academic activity at the University of Latvia
- University of Latvia procedure for recognition of competencies developed outside formal education or through professional experience and learning outcomes achieved in previous education

The admission process at the LU and, consequently, also with the study programmes in the Study Field "**Internal Security and Civil Defence**" is regulated by *the Terms of Admission at the University of Latvia* and its subordinate orders, which determine the procedures for the current academic year:

1. Admission requirements and criteria for undergraduate programmes.
2. Admission requirements and criteria for higher-level study programmes.
3. Admission requirements and criteria for doctoral programmes.
4. Admission procedure for the academic year.
5. Registration fee in the admission.
6. Tuition fees for completion of the full study programme.
7. Number of study places for admission.
8. Procedure for the development of entrance examination materials.
9. Composition of the Admission Committee.
10. Composition of the entrance examination boards.
11. Date and place of entrance examinations.

Requirements and criteria for study programmes are reviewed and updated annually, and according to the Article 46 of *the Law on Higher Education Institutions*, they are published on the UL website by November 1st. Admission procedures vary by study level.

Enrolment in undergraduate studies is centralised through the *Uniform Enrolment in Undergraduate Programmes System*, which integrates the enrolment in 12 HEI in Latvia. The competition for study places is based on the results of the centralised examinations or the secondary education certificate grades of the persons who have acquired secondary education before 2004, who have been exempted from the centralised examinations or have completed their secondary education abroad. In the case of study programmes that do not have relevant centralised examinations, additional requirements for specific grades are set, and the programmes requiring specific skills or aptitude set an additional entrance examination. As a result, applicants are ranked according to their scores. Programmes may provide benefits to national Olympiads and winners of other contests (for more information on admission requirements, see the description of each study programme).

Enrolment in master's degree programmes is decentralised, at each faculty, but with uniform deadlines. Enrolment is based on grades obtained during undergraduate studies. In programmes that allow for prior education in various fields, the entrance examination is used to determine the correspondence of the candidate's prior knowledge to the field of the study programme. For example, the study programme "Work Environment Protection and Expertise" has different implementation times depending on previous education. Full-time regular - 1 year (2 semesters). Previous education: First-cycle higher education (including second-cycle vocational higher education) in labour protection with the qualification "Senior Labour Protection Specialist" or "Labour Protection Engineer" or equivalent professional qualification. The two full-time regular programmes (2 years, 4 semesters and 1 year, 2 semesters) have entry requirements and a formula for calculating the competitive mark in the entrance examination. The entrance examination consists of 3 parts: a test covering basic knowledge in occupational safety, a logical solutions test, a situation analysis. The entrance test takes place on a specific date and each part is timed accordingly. According to the admission requirements, the programme can be completed within two or one academic year, following the set study plans and timetables. This duration is important as it provides clarity on the time students have to dedicate to complete the programme. The study programme has a total number of credits that must be completed in order to obtain the qualification at the end of the study programme. Courses of study are assessed by credits and students are required to achieve a certain number of credits to successfully complete the programme of study.

Admission in doctoral studies takes place centrally. The applicant must submit the topic of the promotion thesis and supervisor should be agreed upon. The applicant's eligibility is assessed by the Doctoral Council of the branch of science. The study programme "Human Factors, Occupational

Safety and Health" also includes entrance interviews.

The LU provides an opportunity to commence studies also in subsequent study stages, in accordance with the *Regulations for commencing studies in subsequent study stages at the University of Latvia* (the LU 07.06.2022 order No 1-4/332). A precondition for commencing studies in subsequent study stages is the recognition of previously mastered study courses or knowledge, skills, competence, learning outcomes achieved in previous education, which is regulated by *the Regulations on LU Procedure for Recognition of Competencies Developed outside Formal Education or Through Professional Experience and Learning Outcomes Achieved in Previous Education* as well as *the recognition and alignment of academic activity* (the LU Senate Decision No 2-3/ 86 of 28 June 2021) (hereinafter – the Regulations) and *the LU Procedure for the Recognition of Study Courses and Knowledge, Skills and Competencies Acquired in Study Courses and Outside Formal Education or Through Professional Experience and Learning Outcomes Achieved in Previous Education* (the UL Order No 1-4/ 543 of 04.11.2021).

Applying to commence studies in subsequent stages, the application must be filled in and the necessary documents must be attached. The LU recognition committee for the recognition of knowledge, skills, competence acquired through non-formal and extra-curricular education or professional experience, and recognition of learning outcomes achieved in the previous education (hereinafter – Recognition Committee) or study programme director, if the student renews studies in the same LU programme, evaluates and recognises previously achieved learning outcomes that corresponds to the learning outcomes in the study courses of the respective LU study programme. Final examinations are not recognised. Recognised learning outcomes are included in the academic obligations fulfilled by the student. Recognition of study courses, recognition of education acquired through non-formal and extra-curricular education, also taking of additional study courses, or taking assessments is a paid service, in accordance with the LU price list of paid services, which is approved annually. The LU evaluates and recognises knowledge, skills, competence acquired through non-formal and extra-curricular education or through professional experience, and learning outcomes achieved in the previous education. During application, documents confirming the achieved learning outcomes must be enclosed/attached – certificates, employer's statements, recommendations, project results, job descriptions, etc. Learning outcomes achieved through professional experience may be recognised only in the part of the respective study programme that contains an internship or as intended learning outcomes in the study course of the study programme or study module, which confirm acquired practical knowledge. In cases stipulated in the Regulations of recognition, the Recognition Committee may ask the applicant to pass assessments required in the respective study course or in its part.

On 27.03.2023 in the Study Field, there were 67 students. Since 2013 study programmes according to codes: *21216 – 21; 21217 - 0; 21224 - 13; 21225 – 33*

Study course recognition in undergraduate and postgraduate study programme is conducted mainly when students return from international exchange programmes or resuming or continuing studies at later stages after changing or discontinuing studies started at the LU or other HEI. In certain cases, the recognition of professional experience is done in the s programmes by referencing knowledge, skills and competence acquired in the professional activity to the internship intended in the study programme. So far, there were no such cases, but the possibility has been ensured.

It is possible to reference academic activity, which is conducted outside of doctoral study programme, to the requirements of the respective doctoral study programme, also to recognise study courses or internship taken at the LU or other HEI, including, international exchange programmes. Requirements for the referencing of academic activity admissible in the doctoral programmes are defined in the recognition regulation and procedure.

Offered opportunity by the LU to perform recognition of learning outcomes achieved through non-formal and extra-curricular education, including, continuing education programmes, is rarely used. In the study field, such recognitions have not taken place within the reported period.

For the LU students, who study or undergo internship within the framework of various international exchange programmes, the recognition and referencing of learning outcomes achieved during mobility is carried out in accordance with the above-mentioned regulation and procedure regulating recognition at the LU, and the *Procedure for Organising Erasmus+ Programme Mobility at the LU* (the LU Order No1/363 of 18.12.2014). Before going on mobility, the student coordinates the plan of mobility study courses or internship with the study programme director, indicating in it also study courses of the LU, which will be recognised and not required to study after returning to the LU. If changes to this plan are made during the exchange, they are agreed upon with the study programme director. In case of internship mobility, the duration and place of internship, as well as the terms of recognition, are agreed upon with the study programme director. In accordance with the LU regulations, the compliance of learning outcomes achieved during the mobility with the regulations of international exchange programme and requirements of the LU. Recognition of learning outcomes achieved and mastered during the mobility is performed by the Study Programme Director of the respective study programme or the Recognition Committee, based on transcript of records from the partner HEI or statement from the internship place. After making positive decision, the recognised learning outcomes are included in the fulfilled academic obligations of the student.

For example, in the academic year 2021/2022 a bachelor student, participated in an ERASMUS+ mobility in England. Students in other study programmes have also started to inquire and apply for inbound and outbound mobility opportunities as Erasmus+ students have the opportunity to do an internship or work placement abroad to develop their knowledge, skills and competences, which will be very important not only for the student in their future work, but also for their employers. So far, students have not taken advantage of this opportunity, as all students in the programme are mainly working, and mobility involves long absences, and therefore absenteeism. The Covid-19 pandemic, which restricted international travel and other forms of travel, also caused serious problems in Latvia and elsewhere in Europe. Each academic year, the programme directors tell current and incoming students about mobility opportunities and the benefits of an internship with a foreign organisation/company or university in the field of occupational safety and health.

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.

In conformity with *the Law on Higher Education Institutions of the Republic of Latvia*, the LU internal regulation the *Procedure for the Development and Actualisation of Study Courses at the University of Latvia* (the LU Order No 1/277 of 10.08.2018) stipulates that information on the conditions, aim, tasks, requirements for obtaining credit points, study course content, organisation of study process through contact classes, organisation and tasks of the students independent work, intended learning outcomes (knowledge, skills, competence) and their assessment methods and assessment criteria, are included in all study course descriptions, which are available to students in the LUIS and the LU e-study environment. The registration and recording of students' grades are done in the LU e-study environment of respective study course. The LU has formulated the learning outcomes

for each study programme and for each study course as a set of knowledge, skills, and competence. Courses in study programmes are developed in accordance with the principles of gradation and succession. To ensure that, the mapping of intended learning outcomes is performed on the level of study programme and study courses.

The results of the mapping of study programmes included in the field of study are presented in detail in the documents attached in Annex 20 (20.1, 20.2, 20.3, 20.4 for each study programme).

Starting studies, students are informed of the organisation and implementation of studies in the relevant study programme, but when starting each individual study course, the academic staff informs students specifically about the organisation, content, requirements, intended learning outcomes, study course final examinations and assessment criteria, as well as explains the integral quality of the study course for achieving overarching learning outcomes of the study programme. Students can familiarise themselves with the assessment criteria and conditions and the binding procedures in the study course descriptions and the LU e-study environment, as well as at the beginning of each course during the first class, when each lecturer introduces students to the course organisation, briefly describes the requirements for interim assessments and study course final examinations, describes grading criteria, assessment and examination procedures, by not changing these requirements and grading criteria throughout the semester.

The organisation of the study course assessments and the grading of the students' achievements is performed in accordance with *the Law on Higher Education Institutions* and *the Procedure for Organization of Examinations of Study Courses at the University of Latvia* (the LU Senate Decision No 211 of 29.06.2015) elaborated by the LU Constitution and applicable to the assessment of learning outcomes of full-time and part-time students enrolled at the LU study programmes at all levels.

There are two types of assessment in each study course: the interim assessment (the total grade for interim assessments not less than 50% from the total grade) and the study course final examination (grade not less than 10% of the total grade). The study course final examinations may be conducted in writing or orally or in a combined form (written and oral). To assess students’ achievements, the form of assessments and methods are chosen in correspondence to the teaching methods used in the study process, during contact classes and in the organisation of students' independent work.

Taking an examination is a mandatory requirement for obtaining credit points for the completion of a study course. The procedures and criteria for the interim assessments are determined by the responsible structural unit. The study course grading is calculated in the LU Centralised Recording System according to the algorithm specified in the course description, considering the grading obtained in the interim assessment(s) and study course final examination, and recorded in the examination report.

Types of interim assessments include quizzes, individual work, practical work, laboratory work, reports, papers, and other types of work according to the profile of the study course. The number and type of interim assessments are specified in the study course description. For the student to receive grading for the completion of the study course, the grading acquired in the study course final examination should be a passing grade. The completion of the course can be assessed as successful even if the study course final examination has been failed, and such possibility is defined in the study course description. The overall grading of course completion is calculated in the LU e-study environment according to the algorithm specified in the course description, considering the grading obtained in interim assessments and study course final examinations.

According to the specifics of the study course, the requirements for attendance of classes may also

be set.

At the end of each study course there is a study course final examination: examination or defence (course work, final project, semester paper, field course, internship). The procedure of defence and assessment of course work, final thesis project, semester paper, field course and internship are stipulated in the LU normative acts. According to the specifics of the study course, the requirements for attendance of classes may also be set.

Learning outcomes are evaluated on a 10-grade scale. If allowed by external regulations, learning outcomes can be assessed as ’passed’ or ’failed’ with the permission of the LU vice-rector. The course is considered to have been successfully completed, i.e., the grade is positive, if the grade on the 10-grade scale is not lower than '4' (almost satisfactory) or 'passed'. In this case, the student earns credit points for the completion of the respective course.

For the assessment of students’ knowledge, skills, and competence in each study course in the 10-grade system, the study result criteria described beforehand are used. The basis for formulation of criteria is learning outcomes formulated in each study course and explanations of assessments (see Table 2.1.5.1), which is published in *the Procedure for the Development and Actualization of Study Courses at the University of Latvia* (the LU Order No 1/277 of 10.08.2018).

Table 2.1.5.1

Explanation of the 10-grade system assessments

Level of Learning	**Grade (description)**	**Explanation** *(Pursuant to Cabinet of Ministers of the Republic of Latvia Regulations (hereinafter – the Cabinet) No 141, 512, 240 and the UL Senate Decision No 211 of 29.06.2015)*
very high level of learning	**10 (with distinction)**	knowledge, skills, and competence exceed the requirements of the study programme, study module or the study course and testify to the ability to conduct independent research and deep understanding of problems
	9 (excellent)	knowledge, skills, and competence fully comply with the requirements set for the study programme, study module or the study course and the students possess the ability to use the acquired knowledge independently
high level of learning	**8 (very good)**	the requirements of the study programme, study module or the study course are completely met, though in certain issues the students do not have an understanding deep enough to use the knowledge independently for solving more complex problems
	7 (good)	in general, the requirements of the study programme, study module or the study course are met but occasionally the inability to use the acquired knowledge independently is established

average level of learning	**6 (almost good)**	the requirements of the study programme, study module or the study course are met, but there is a lack of deep understanding of the problem and inability to use the acquired knowledge
	5 (satisfactory)	in total, the study programme, the study module, or the study course is acquired but there is insufficient knowledge of certain issues and inability to use the acquired knowledge
	4 (almost satisfactory)	in total, the study programme, the study module, or the study course is acquired, however, there is insufficient understanding of some basic concepts and there are considerable difficulties in practical application of the acquired knowledge
low level of learning	**3 (weak)**	the knowledge is superficial and incomplete; the student is unable to use it in specific situations
	2 (poor)	superficial knowledge of only some issues; most of the study programme, study module and the study course are not acquired
	1 (very, very poor)	no understanding of the fundamentals of the course and almost no knowledge of the study programme, study module or the study course

The needs of students and the relevance of assessment methods and procedures to the achievement of the objectives of study programmes are analysed and developed, considering the experience of academic staff, by analysing learning outcomes achieved by students and the results of surveys conducted over several academic years. In the surveys, students recognise the importance of clearly formulated intended learning outcomes and defined assessment criteria, as well as the regular feedback on students' achievements in the study process. To ensure this, the academic staff systematically analyse their experience, collaborate with colleagues, analyse students' achievements, and improve course descriptions and e-study environment by developing assessment criteria that corresponds to the intended learning outcomes, thus providing the basis for the assessment.

Evaluating learning outcomes, the basic assessment principles formulated in the regulations of the Cabinet No 305 *the Regulations Regarding the State Standard for Professional Higher Education* (13.06.2023)and No 240 the *Regulations Regarding the State Standard for the Academic Education* (13.05.2014) are observed:

- **the principle of summing up positive achievements** – assesses by summing up positive achievements of the learning outcomes;
- **the principle of openness and transparency of the assessment** – a set of basic requirements for knowledge, skills and competence is established in line with the aim, objectives and learning outcomes of the study programme as well as the aim and objectives of study courses;
- **the principle of the possibility of reviewing the assessment** – the UL has established

the procedure for reviewing the obtained assessment;
- **the principle of mandatory assessment** – it is necessary to obtain a positive grade on completion of the entire study programme content;
- **the principle of the variety of types of assessment used in the grading** – different assessment types are used in the assessment of the study programme;
- **the principle of conformity of assessment** – during the assessment student is given an opportunity to demonstrate knowledge, skills and competence in relevant tasks and situations. The content included in assessments corresponds to the content and achievable learning outcomes specified in the course programmes.

The basic criteria for the assessment of graduation examinations are determined in the *Requirements for Elaboration and Defending of the Graduation Papers (bachelor's, master's, diploma, and qualification papers) at the University of Latvia* (the LU Order No 1/38 of 03.02.2012). Additional criteria may be determined for the assessment of graduation papers, which are approved by the respective Faculty Council on a proposal from the relevant Study Field Council.

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.

The LU in its activity respects the principles of fair and responsible conduct as stipulated in *the Academic Ethics Code of the University of Latvia* (the UL Senate Decision No 2-3/46 of 26.04.2021) and in *the Regulations on Academic Integrity at the University of Latvia* (the LU Senate Decision No 2-3/48 of 26.04.2021); these regulations are publicly available to staff of the LU and its students.

A separate ethics committee for research at the Faculty of Chemistry "Chemistry, Occupational and Civil Protection" has been set up in the direction of studies (Approved by the Council of the Faculty of Chemistry of LU Decision No. 23-4/1422 of 10.02, 2022). In its activities the Committee shall comply with international legislation in the field of research ethics (European Charter of researchers, Charter of Fundamental Rights of the European Union, Declaration of Helsinki, Regulation of the European Parliament and of the Council on the Protection of natural persons with regard to the processing of personal data, etc.), the Code of Ethics of a scientist of the Latvian Council of Science and the Latvian Academy of Sciences, the Law on Scientific activity, the Constitution of the LU, this by-law and other laws and regulations in force of the Republic of Latvia and the LU. The purpose of the Committee shall be to protect the rights, health, safety and dignity of study participants, to prevent harm to study participants, society and the environment, and to promote the reputation and excellence of the LU as a scientific institution. The Committee shall implement this with due respect for the scientific freedom of researchers and the scientific objectives of research.

Ethical principles and explanation and conditions of plagiarism have been incorporated into the methodological regulations of all study programmes of the study direction regarding the development of final work. The methodological regulations were approved at the meeting of the COUNCIL of the FChem in 2022.

To ensure compliance with the academic integrity in accordance with *the Regulations for Academic Integrity at the University of Latvia* (approved on 26.04.2021. by the UL Senate Decision No. 2-3/48), UL developed a procedure for verifying the originality of text using similarity detection

tools, such as the Turnitin and the Unified Computerised Plagiarism Control System. In accordance with *the Regulations on the Use of Text Originality Verification Tools and Procedure for Plagiarism Detection in the UL* (approved on 09.01.2024 with the Order No. 1-4/12) verification of text originality is conducted in students' study papers, final and doctoral theses, as well as in scientific articles and research developed by the personnel of the UL. The Regulations regulate the implementation of text originality verification and actions taken in cases where signs of possible breach of academic integrity (e.g., plagiarism in accordance with *the Regulations for Academic Integrity at the UL*) are detected.

The LU as the developer of this System and its operator constantly updates the System and provides other HEI with the opportunity to use the System based on a cooperation agreement. In accordance with the cooperation agreement concluded in the 2014, this System is used by seven HEI in Latvia since the beginning: Daugavpils University, Liepaja University, Latvia University of Life Sciences and Technologies, Rīga Stradiņš University, Rēzekne Academy of Technology, EKA University of Applied Sciences and RISEBA University of Applied Sciences. Since 2014, the Alberta College, Baltic International Academy, BA School of Business and Finance, Turība University, ISMA University College, Jāzeps Vītols Latvian Academy of Music, Jēkabpils Agribusiness College, College of Law, Latvian Maritime Academy, Latvian Academy of Culture, Latvian Academy of Culture agency "Latvian College of Culture at the Latvian Academy of Culture", Malnava College, Riga Building College, Vocational education competence center "Riga Technical College", Riga Technical University, State Agency for Social Integration College, Cosmetology College, State Police College, Ventspils University College, Vidzeme University of Applied Sciences, and Academy of Luther has joined in the use of the System; in total the System is being used by 30 HEI.

The system automatically compares the uploaded graduation papers of the UL with study papers of previous years (starting from 2005) from LU and other HEI, and in the event of a certain percentage match, the authorised persons from faculties are sent an overview of these test results, whereby the same text snippets from different authors are simultaneously viewed. The authorised persons pass this information on to the respective study programme director, the appointed supervisor and reviewer for review and, in the event of a suspected breach of academic integrity, pass on the results of the analysis to the respective Graduation Examination Commission for final consideration.

The cooperation of several HEI in the field of using the System promotes more effective control of study works in each HEI and Latvia overall. This System is a unique collection of study papers in Latvian, it is financially and technologically available to even the smallest of HEI, and successfully performs its functions in practice by promoting the originality of final theses and their quality.

Despite the successful application of the System described above, for University of Latvia as the university of science the direction of scientific activity is always important, e.g., scientific publications, citation frequency and reputation in the international science field where English is the dominating language. Therefore, the essential element in this direction is to verify the originality of the submitted manuscript before publishing in the University of Latvia Press or journals or collections of articles of other academic press, which can be achieved only with such instruments that have access to the restricted or paid databases of international publishing houses. Currently, the only tool in the world that can provide such an opportunity is Turnitin LLC’s “Turnitin Similarity” service.

In parallel to that, “Turnitin Similarity” can ensure more of the functionalities that the System maintained by the LU cannot offer due to its architecture and scaling limits, namely, the possibility to integrate the text originality tool into the e-study platform and provide access to the tool for academic staff to verify the originality of regular study papers.

Lastly, text translation and creation technologies, which with the assistance of machine learning and artificial intelligence tools, create new challenges for the verification of the originality of the texts submitted during the study process, are gaining popularity and cause an uproar in the media around the world and in Latvia. Only the collective competence, trained language models and computing power of global companies such as Turnitin LCC allow us to respond to the new language technology challenges effectively and promptly for the study and scientific environment, which is why in the 2022 the LU, after carefully evaluating and testing the solutions available on the market, came to decision on the need to supplement the already existing plagiarism control system with a toll necessary to the academic and scientific community of the LU.

16.12.2022. LU concluded an agreement with the company Turnitin LLC for the implementation and use of the anti-plagiarism tool for the needs of the LU.

The LU Code of academic Ethics includes principles and norms for fair and responsible conduct of the LU family. The purpose of the Code is to promote academic excellence and promote co-operation of the LU family for the benefit of education and science in Latvia. The Code is valid for LU academic work and mutual communication. The purpose of the Code is to create an environment favourable to acquisition of knowledge, free exchange of thought and improvement of human personality. The Code shall be drawn up in accordance with the Constitution of the Republic of Latvia and other regulatory enactments. As fundamental principles of the code of ethics, they are defined: academic freedom, integrity and fairness, responsibility, loyalty, respect and collegiality. The principles of the Code shall be implemented in joint work of the LU family, including the CF. The implementation of the principles improves the quality of education and scientific work, promotes sound dignity and trust, prevents expressions of conflict of interest with regard to LU funds and property, and prevents the use of authority, positions, academic standing in the interests of selfishness. The principles of the Code are laid down for the conduct of teaching staff and scientific staff, students and general staff. The implementation of the Code depends on the work, integrity, self-monitoring, self-control and self-improvement of each representative of the LU family. LU management shall ensure the availability of the Code. The administrative and academic staff of the LU shall promote implementation of the principles and norms of the Code with their sample, as well as with improvement of laws and regulations and work organisation in the LU. The implementation of the Code shall be facilitated and supervised by the academic Ethics Commission of the LU, which shall examine violations of academic ethics in accordance with the by-laws of the academic Ethics Commission of the LU. The LU academic Ethics Commission expresses its opinion, supports Code-compliant behaviour, condemns Code violations, and proposes that the LU Rector take action to address them.

Academic integrity defined in the LU regulations on Academic integrity the University of Latvia, is behaviour that includes objectivity, accountability, mutual respect and trust, excludes deception and fraud, and promotes the quality and prestige of education and science in Latvia. The rules developed by the LU aim to strengthen academic culture and academic honesty in the LU academic setting. The adoption of the rules explains academic integrity and related behaviour, lists the most common violations of principles of academic integrity the academic environment and the duties of LU staff to prevent academic dishonesty. In assessing academic integrity breaches of the principles of academic honesty in scientific activity constitute one of the seven points defined in the LU rules.

Where necessary, LU personnel, including the staff of the study direction shall report a violation of academic integrity to the head of the core unit - the dean, the prorector or the rector. The LU has determined that academic integrity is respected in any relationship involving LU personnel. LU personnel shall refrain from spreading false information about other members of LU personnel. LU BVEF personnel are obliged to cooperate with the head of the core unit (dean of the Faculty of Chemistry), the LU Rector, the Prorector or other members of the LU staff if a breach of academic

honesty has been established. In case of violations of regulations, the consequences and liability provided for in the Regulations regarding academic honesty and other regulatory enactments of the Republic of Latvia and the LU shall occur (LU Senate Decision No 2-3/48 of 26.04.2021. Regulations regarding academic integrity at the University of Latvia). The terms of the LU Senate decision provide academic integrity in student and LU academic and general staff actions. Under the rules, students must adhere to the principles of academic integrity.

All violations of academic integrity are recorded in the case of LUIS and the student. If it is determined that the student is using or has used unauthorised aids or has admitted plagiarism, then the student shall be suspended from the examination with an appropriate record in the protocol and the management of the LU shall decide on the application of the disciplinary punishment upon the proposal of the teaching staff or the Dean of the faculty of LU (FChem). The student is entitled to provide an explanation regarding his or her actions to the teachers of the LU and the Dean of the Faculty of the LU in accordance with the procedures specified by the LU. A student may contest decisions taken regarding violation of these Regulations in accordance with the procedures specified in regulatory enactments of the LU. In the direction of studies, the joint procedures laid down by the LU in matters of violations of academic integrity shall be used. For example, the dean of the Faculty of LU evaluates this report within three working days of receiving the report on violations of academic integrity and makes the appropriate decision. A conflict of interest shall be considered as a situation in which LU academic staff are required to take decisions, participate in decision-making or take other actions which may affect the academic development of the related person, in particular the evaluation of all types of examinations, course, final and promotional work, the management of course work, final work and promotional work, the granting of scholarships and awards, the granting, recruitment or election of funding for scientific activity in academic and administrative positions. In order not to create situations of apparent conflict of interest, the LU teacher has the right to distinguish himself or herself from decision-making in cases where there are other circumstances which could give rise to reasonable doubts as to his or her impartiality. In order to avoid conflict of interest, the person associated with the LU teacher shall, as far as possible, choose to take a study course with another lecturer.

The LU lecturer shall refrain from conducting the course, conclusion or promotional work of the related person. If due to narrow specialisation academic staff have to participate in the assessment of the examination or final examination of the related person, the examination Commission shall perform the assessment or at least another neutral representative of the academic staff - head of the department (division) or dean of the faculty shall participate. The academic staff of the LU with whom the associated person is assessed shall refrain from assessment, nor shall they be in the examination room. For academic and general personnel who violate these Regulations, the rector of the LU or a person authorised by the rector shall apply a disciplinary punishment in accordance with the laws and regulations of the LU and the Republic of Latvia. The rules on academic integrity in the LU have appropriate forms of annexes that (1) give detailed reasons for what constitutes plagiarism and how it is established; 2) a form has been drawn up for the preparation of a report regarding violation of academic integrity of the student.

In implementing the study direction, the FChem fully supports the LU Code of academic Ethics (LU Senate Decision No. 2-3/46 academic Ethics Code of the University of Latvia), in terms of principles and norms of fair and responsible conduct of the University of Latvia community. Anti-plagiarism tools are used systemically. LU is the developer and maintainer of this system. It regularly improves the system and offers the possibility for other Latvian institutions of higher education to use it on the basis of a cooperation agreement. Currently, on the basis of the cooperation agreement, seven Latvian institutions of higher education already use the plagiarism control system: Daugavpils University, Liepaja University, Latvia University of Agriculture Stradins University, Rezekne

Academy of Technology, School of Economics and Culture, as well as Riga International School of Economics and Business Administration. The anti-plagiarism system automatically compares the final works uploaded to these university systems, including materials available on the Internet, and if the coincidence of pieces of work reaches a certain percentage, a report on these test results is sent to study programme directors, where the same passages of texts in the works of different authors are simultaneously viewed.

Anti-plagiarism control in LU FChem is carried out by the dean and the directors of the respective study programmes. The study programme directors shall submit this information for initial evaluation to the head and reviewer of the relevant final work and, if there is a suspicion of an infringement of academic honesty, these results of the analysis shall be referred to the final examination Commission for examination and decision. This has made it possible to trace and identify, if necessary, possible infringements in detail. Since the start of use of this tool, there have been isolated cases of plagiarism in LU FChem, however, cases where work does not fully meet the criteria are rare. In FChem practice, there have been no isolated cases where students have been exmatriculated from a study programme for committing a breach of academic honesty in the final works, e.g. 3 works were considered in 2022 and 4 in 2023 where signs of plagiarism were identified but were not recognised as plagiarism after review. Where it is not possible to control plagiarism in the single system, for example, as is the case for English students (currently only in PhD studies), this shall be done by the director of the programme concerned by manual input.

In the knowledge of the possibilities of this tool, students have become more aware of the principle of creating study work and the possible consequences of violating this principle. By collecting data on received reports of a student's breach of academic honesty during the accreditation period from 2013 to 2022, we conclude that no cases were detected in the direction of study leading to exmatriculation for a significant violation of LU internal order regulations for students.

It can therefore be concluded that the plagiarism control system developed by the LU is functioning successfully and successfully fulfils its tasks. Co-operation of several institutions of higher education in the field of use of the system promotes more efficient control of study work in each institution of higher education and Latvia as a whole, and this system works successfully in practice by raising the significance and quality of the final work.

Every Member of the LU is invited to inform the LU academic Ethics Commission of the Code violations in good faith and fairness. Every Member of the LU shall have the right to submit proposals for improvement of the Code and its implementation to the LU academic Ethics Commission.

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.

The functioning of a sustainable study programme that meets the objectives of the LU study field and study programme is ensured by systematically defining and implementing quality assurance procedures, including continuous monitoring and analysis of the implementation of the study

programme, the use of measurements for the prompt implementation of preventive and improvement measures. The provision of management levels involved in the quality assurance of the study programme allows to implement the programmes in a predefined form according to predefined procedures, reacting promptly to changes in the situation, with quality-related decisions being taken collectively or according to the division of competence. An important methodological tool for quality assurance is *the Quality Management Handbook of the LU*, which identifies in detail the practice of the LU in ESG implementation.

Study field's internal quality assurance system is based on external quality requirements set out in standards and guidelines for quality assurance in the European higher Education area developed by the European Association for quality Assurance in higher Education. Based on the laws and regulations of the Republic of Latvia, Section 5, Paragraph 2.1 of the Law on Institutions of Higher Education, which provides that an institution of higher education shall implement its internal quality assurance system, within the framework of which policies and procedures for ensuring the quality of higher education shall be established.

The quality of the study field and its study programmes is managed through a *Plan-do-check-act* or Deming cycle.

The following activities are the most relevant for the implementation of quality improvement measures within the internal quality assurance system:

- Evaluation of the results obtained – regular examination and evaluation of the quality of studies and research work (determination of the quality of the activities of lecturers, evaluation, and supervision of annual performance (peer observation) at meetings of the study direction Council and comparison thereof with the tasks specified.
- Quality control - evaluation of indicators of the system (satisfaction, drop-out, performance, final work of students, continuation of studies in Bachelor's studies, Master's degree, PhD) and analysis and evaluation of the results of the survey of students, employers. Quality control shall be ensured by the head of the study field, the directors of study programmes and the dean of the faculty, and the issues related thereto shall be regularly discussed in the study field Council.
- The effectiveness and achievement of the objectives of the internal quality assurance system of the study direction are demonstrated by a number of criteria, one of which is the number of matriculated students. As a second criterion, which confirms the efficiency of the internal quality assurance system of the study field and achievement of objectives, there are multiple evaluations of study programmes and international experts of the study field, which have recognised the study direction and programmes thereof as conforming to standards and have welcomed them. The third criterion for attesting the effectiveness of the internal quality assurance system of the study field and achieving objectives is the results of surveys of students, graduates, employers, and analysis thereof, as reflected in the self-assessment report.

Various activities, including targeted co-operation with employers and professional organisations, formal and/or informal questionnaires of employers and social partners, discussion of focus groups, surveys of students on the quality of the study course and organisation of the study process, questionnaires of graduates and students on the quality of study programmes, monitoring of graduate careers etc, shall be implemented for regular analysis and updating of study programmes, as well as determination of the necessity for improvement of the study process. Quality assurance is based on active international cooperation with cooperation partners of leading academics e.g. Penn State University in the USA, Valencia University in Spain, Tallinn University of Technology in Estonia, etc.), involvement of employers and social partners in the development of study content,

participation in the evaluation of student achievements throughout the study process, development of qualification work, provision of practical and scientific research, etc.

Cooperation shall be ensured between teachers involved in the implementation of study field programmes, including mutual evaluation of teachers (peer observations) and regular evaluation of teachers at meetings of the study direction Council. There is an exchange of experience and then a discussion of teaching methods during mutual visits between teachers, which allows the methods and style of teaching of each teacher to be improved.

At the same time, continuous feedback is ensured to inform both sides about learning outcomes and competences achieved by students and graduates. At regular meetings of the Study Field Council, which are also used as methodological seminars at the same time, the invited teachers shall share mutual experience and inform co-workers regarding innovations that are applied for implementation of the study process. In contact with graduates and industry representatives, their views on the focus of practical content that needs to be integrated into the study process, such as the development of digital competences, are heard. Regular follow-up of graduate careers, with study program directors keeping in touch with graduates, leading students to graduate-represented companies for practical experience (Stora Enso packaging, Ventspils oil terminal. More detailed information and concrete examples can be found in study programme self-assessment reports.

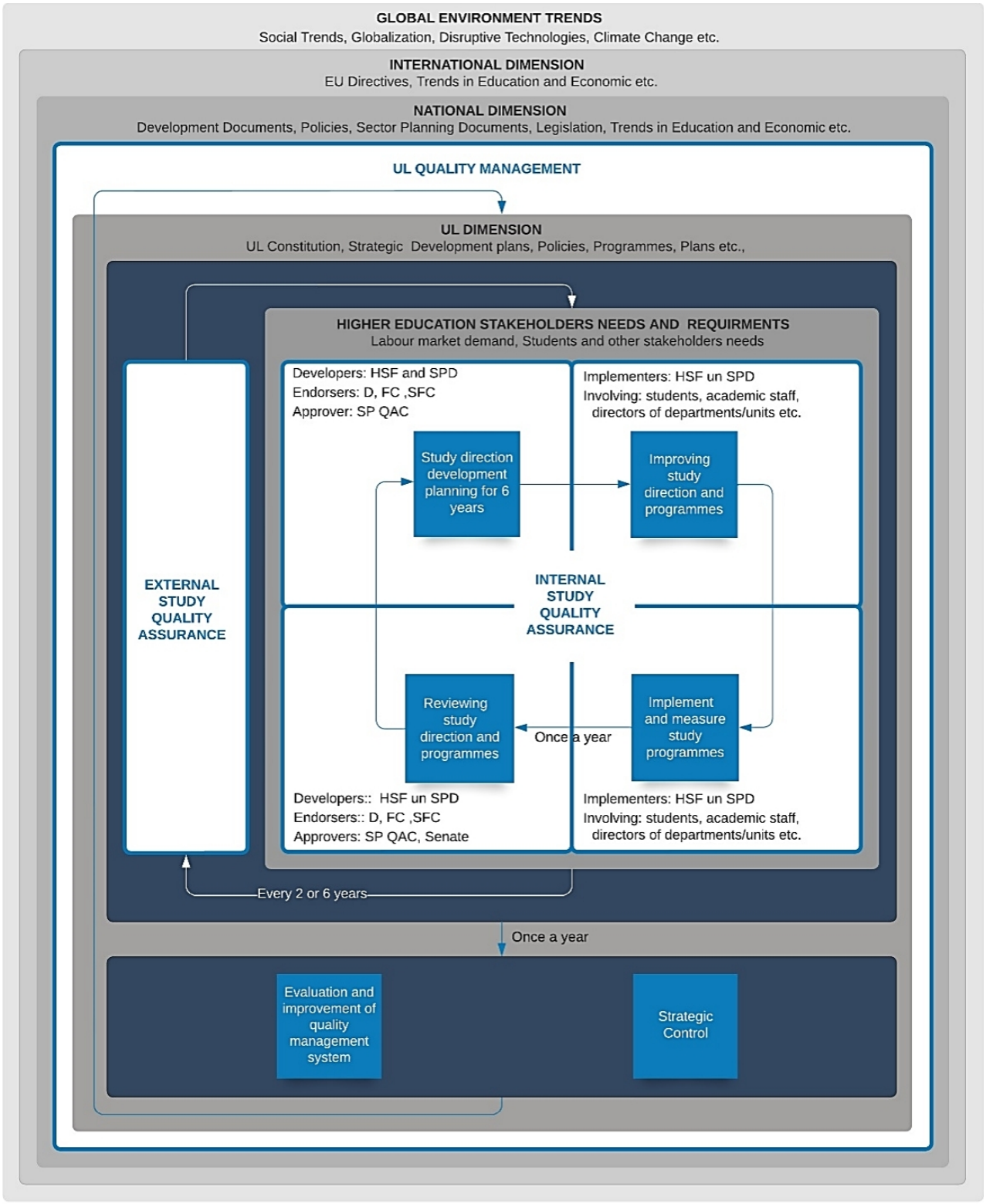
2.2.2. Analysis and assessment of the system and the procedures for the development and review of the study programmes by providing specific examples of the review of the study programmes, the aims, and regularity, as well as the stakeholders and their responsibilities. If, during the reporting period, 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).

The study field shall be bound by regulatory enactments, where the procedures and activities to be observed during the process of establishment and review of study programmes are specified:

- Regulation of Study Programmes (document only in Latvian)
- Procedures for preparation of annual reports of study directions of LU (document only in Latvian)

The quality of the study field and its study programmes is managed through a *Plan-do-check-act* or Deming cycle, planning the development and improvement of the field of study over a six-year period, cascading its goals and objectives down to the level of each study programme and regularly monitoring the requirements of stakeholders for effective planning, needs and proponents, in accordance with *the LU Strategy 2021-2027*, taking into account national and international sectoral policies and trends, as well as the impact of global environmental trends on the activities of the LU up to the level of study programmes.

Within the framework of the **LU study quality assurance system** (see Fig. 2.2.2.1), the development of the study field and the interconnection of study programmes, the establishment of new study programmes, as well as the results of each existing study programme are planned, monitored, evaluated, and reviewed, ensuring the involvement of all levels of the study field management in the quality assurance of studies, as well as representatives of key stakeholders. The review of study programmes is regulated by the procedure established in *The LU Procedure for Preparation of Annual Study Field Reports*(approved by the LU Order No 1/255 of 13.07.2018).



Abbreviations:
HSF - Head of Study Field; SPD - Study Programme Director;
D - Dean; FC - Faculty Council; SFC - Study Field Council;
SP QAC - Study Programme Quality Assessment Commission

Fig. 2.2.2.1. ***Quality assurance system of study fields and included study programmes at LU***

The development of new study programmes is regulated by *the Regulations on University of Latvia Study and Continuing Education Programmes* (the LU Senate Decision No 102 of 24.04.2017.), it is implemented in several stages, including coordination and evaluation twice at all levels of governance involved in the quality assurance of studies – by coordinating and approving the study programme concept, as well as coordinating and approving the study programme characteristics at the end of the process. For a detailed description of the development of the programme and the

content of the concept, see *the Quality Management Handbook*, Section 3.1, Section II. (*The Quality Management Handbook* is available in the section *Other annexes*)

In the process of self-assessment and development of new study programmes, responsibilities are divided between study programme directors, the head of the study field, Study Field Council, Faculty Council, Academic Department, and the SP QAC as well as the Senate.

The LU heads of study fields in cooperation with study programme directors, prepare Annual Study Field Self-Assessment Reports (hereinafter – Self-Assessment Report) every academic year (except periods when the respective study field is involved in the re-accreditation process). Self-Assessment Reports are approved by respective Study Field Council and Faculty Council and submitted to the Academic Department. The Academic Department evaluates the compliance of the self-assessment report with the requirements and directs it for evaluation in the SP QAC composed of all vice-rectors, the Chair of the LU Senate Academic Committee, the LU Students' Council representative, the UL Alumni Club representative, the Library of the LU representative, the Quality Manager, the Internal Auditor, as well as representatives of the Academic Department and the Department of Study Service. Self-Assessment Reports reflect implementation and development of the study field, and its programmes, quantitative indicators and survey results are analysed, as well as proposals for improvement of the study field are provided. In the process of reviewing the study field, as well as during development of new study programmes, the Academic Department provides an independent expertise and ensures the inclusion of substantiated proposals by the said expert. Accreditation self-assessment reports are prepared using the annual self-assessment results. The recommendations of the Accreditation and Licensing Evaluation Expert Group and the SP QAC are evaluated by the respective Study Field Council, preparing a plan for the implementation of expert recommendations, which is agreed with the SP QAC. More information on the content of the self-assessment of study programmes and the process of ensuring external accreditation in Sections IX and X of Chapter 3.1 of *the LU Quality Management Handbook*.

In order to ensure the full cycle study process, new study programmes were developed during the reporting period: The professional Bachelor's study programme “Occupational Health and Safety at work”, the first level professional study programme “Labour Protection”, as well as the doctoral study programme “Human factor, Occupational Safety and Health”. The justification for the establishment of vocational study programmes can be found in the establishment of binding professional standards, as well as in the preparation of specialists at different levels of education. However, the existence and development of the doctoral study programme “Human Factor, Occupational Safety and Health” is evident from the point of view of development of the Republic of Latvia, because it is a higher level study programme, which ensures the preparation of specialists with doctoral degrees in several scientific disciplines, which include social and engineering disciplines, including information technologies (IT) and digitalisation, the field of occupational and health protection, including safety culture, design, psychology and pedagogy, management sciences, including management of systems, projects and processes. Along with the offer of these new study programmes, the Study Field has acquired an important supplement, which will allow the preparation of the necessary professional and competent occupational protection specialists for the labour market in the future and also promote scientific development in the fields of occupational protection and ergonomics (doctoral and master's study programmes). Improvements based on the results of accreditation of previous study fields and the annual recommendations of independent experts in the self-evaluation process are carefully implemented in the direction of study. As a result, new co-operation has been created (e.g. extended co-operation with the Business efficiency Association, Latvian ergonomics society), new study courses have been developed (New study courses have been introduced in the Master's study programme: “Labour Law Fundamentals and Legal Aspects” and “Record-keeping management in occupational protection”, changes have been

made to the proportions of academic positions (for example, new doctors and doctoral students attached to the study process), a new doctor's "Human factor, Occupational Safety and Health" and a Bachelor's study programme "Occupational Health and Safety at work" have been developed, an occupation protection room has been established (room 621), a methodology attached to the study process, etc. More detailed information is included in self-assessment reports for each study programme.

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.

LU, in keeping with the principles of democracy and equality, and in line with *the LU Quality Assurance Policy*, in all stages of the study process, from admissions to final examinations, ensure the participation of applicants and students in the evaluation of the LU study process. In matters relating to the admission procedure, LU applicants have the right to lodge complaints with the Chairman of the Admission Board.

The right of LU applicants to lodge complaints regarding irregularities in the admission procedure are governed by the *Terms of Admission at University of Latvia* (the LU Senate decision No 2-3/68 of 31.05.2021), specifying the procedures for the lodging, processing, and appeal of the complaint.

However, to improve the quality of studies, students have the right to submit proposals and complaints concerning the study process and quality, the quality of material supply, duty fulfilment of the LU employees, service culture and cooperation, as well as dishonest or unethical actions from the LU employees.

To ensure the quality of the study process, in 2022 the LU reworked *the Procedure for the Submission and Resolution of Students' Proposals and* of 2002 and replaced it with *Regulations on lodging and review of students' proposals and complaints at the University of Latvia* (the LU Order No 1-4/501 of 28.09.2022) (hereinafter – the Procedure). This Procedure defines the form in which students, individually or in a group, can submit proposals and complaints, as well as its registration and reviewing order. Proposals and complaints can be submitted to faculty deans or vice rectors (in case they concern the deans' work or if the submission may unfavourably influence the future of studies). The Procedure stipulates that replies to proposals and complaints are to be submitted within the deadline set in *the Law on Submissions*. It should be noted that this Procedure states that faculty deans and vice rectors submit the report on received proposals and complaints, as well as the decisions made regarding them in the previous academic year, to the LU Quality Manager by the end of each academic year. The LU Quality Manager assesses those reports, analyses tendencies, and prepares report to the Management of the LU. The established process demonstrates the internal control mechanism and cyclic monitoring of submission of complaints, decision making, respect to students' rights and interests, which is essential in ensuring acceptable functioning of this system as well as its possible improvement.

The Procedure for the Organisation of Study Course Examinations at the University of Latvia (the LU Senate Decision No 211 of 29.06.2015) has been developed and implemented for the

comprehensive evaluation of LU study processes, where the right of students to file complaints regarding the procedures for study course interim assessments and study course final examinations, and the procedures for resolution of these complaints have been determined. The complaint is submitted by the student to the member of teaching staff who has evaluated the study course final examination within five working days from the moment the grade is inputted in the LUIS (on condition that the student has requested a justification for the assessment from the academic staff prior to submitting the complaint). The lecturer must review the application within 5 working days. If the lecturer considers that the student's application is not substantiated, they may submit the application to the respective head of structural unit for consideration and decision.

As regards the evaluation of graduation examinations, *Regulation on graduation examinations at the University of Latvia* (the LU Senate Decision No 183 of 27.12.2011), which stipulates that the students are entitled to appeal if the dean has not given them permission to take the graduation examinations or to appeal against the graduation examination procedure.

The LU also has an Academic Court of Arbitration, whose regulations provide for the opportunity to apply to this collegial institution for any study-related issues, including control over adherence to the principles of assessment.

The students have the right to appeal against the LU order on the ex-matriculation in conformity with the *University of Latvia state budget subsidized study place competition (rotation) procedure* (the LU Senate Decision No 381 of 24.05.2010). In its turn, *the Study Fee Relief Procedure* (the LU Order No 1/89 of April 14, 2009) provides students with an opportunity to appeal against decisions on granting or refusing tuition fee discounts within one month from notification issued to the student by submitting a written application addressed to the Rector of the UL, to be considered by the Rector within one month.

Whereas *the Procedure for Granting an Academic Leave of Absence in the University of Latvia* (the LU Senate Decision No 178 of 01.12.2008) provides for the right to appeal against the decision of the dean refusing to grant a student the academic leave of absence. Also, *the Procedures for the Initiation of Studies in Subsequent Study Stages at the University of Latvia* (the LU Order No 1/128 of 08.06.2009) provides for the right to appeal within a specified period against the decisions made by the dean.

In compliance with the rights of students also outside the study process, for those students who use the LU student hotels, *the Internal Regulations of the Dormitories of the University of Latvia* (the LU Order No 1/171 of 30.06.2009) define the rights and obligations of students, including the right to submit complaints about problems in student hotels. These issues are addressed by the superior of a student hotel.

Every student has the right not only to use the right provided by *The Academic Ethics Codex of the University of Latvia* (the LU Senate Decision No 2-3/46 of 26.04.2021) to address the Academic Ethics Committee of the LU about possible ethical violations, but also to submit proposals for improvement of the Code and its implementation to the Academic Ethics Committee of the LU.

The proposals and complaints are registered with the departments or commissions where they are submitted, as well as outcomes of the enquiry taken and respective resolutions.

At the normative level, *the Regulations on Visiting Students from the Latvian Higher Education Institutions* (the LU Order No 1/17, 25.01.2006) have defined the principle that visiting students also have the same rights and obligations as students at the LU, which means that the system of submission and consideration of complaints and proposals is applicable to these students.

It follows from the above that the centralised segment of the LU complaint and proposal submission

and review system covers all the components of every student study life as it applies to enrolment at the LU as well as the full-cycle studies, final examinations, etc.

According to the Bologna process, learning outcomes should be used to describe qualifications structures and qualifications in higher education programmes. In the process of building a single European higher education area, learning outcomes are interpreted as statements (elements) about what is expected, what a student will know, understand and/or be able to do at the end of a specific learning period (after a study programme, study module, study course or class). Learning outcomes are formulated to express what students are expected to achieve and how what has been achieved can be demonstrated. The learning outcomes approach is important in the context of higher education, quality assurance lifelong learning, formal and non-formal learning recognition. According to the recommendations of the Academic Department of the LU: knowledge is the result of the acquisition of information received during the study process, a set of lessons related to the field of study and work. Knowledge can be both factual and theoretical; skills can apply knowledge to perform practical and theoretical tasks. Skills can be both cognitive (use of logical, creative thinking) and practical (including manual dexterity and use of methods, materials, and tools); competence – a set of knowledge, skills and attitudes for responsible and independent performance of activities in study and work situations, professional and personal development.

Study results at the level of study programmes and study courses help to ensure coherence between courses of one programme, successor programmes, ensuring implementation of a student-centric study process. Study results enable students to understand exactly what they will be able to do after a successful study period, which in turn contributes to more effective learning. The Law on institutions of higher Education of the Republic of Latvia states that the results of studies are the "set of knowledge, skills and competence to be acquired at the end of the study programme, study module or study course". *Law on Institutions of Higher Education.*

In view of this, LU FChem has developed the knowledge, skills, and competence of courses forming part of the study programme of the "Internal Security and Civil Defence" study line and integrated study programmes and directional levels. Study courses for study programmes have been developed in conformity with the principles of gradual and succession, understanding the principles of teaching (systematic, succession, progression, integrity, diversity etc.). In order to comply with the development and updating of study courses in the LU, the procedures for the development and updating of study courses in the LU have been approved by the Rector's order No. 1/277 of 10.08.2018, in accordance with Section 56^1 of the *Law on Institutions of Higher Education*. The procedures prescribe the process for the development and updating of study courses, the requirements for the development of the description of study courses and the e-course, which is implemented in distance learning, as well as the procedure for inclusion and exclusion of study courses in the study programme.

In order to ensure this, mapping of the planned results of study courses has been performed in study programmes. In one study programme, all study courses shall be co-ordinated so that they together direct the student towards achieving the results of the study programme. When developing a new study programme or when updating an existing study programme, the LU is recommended to perform mapping of study results of the study programme (curriculum mapping) in order to ascertain and ensure that the learning results formulated in study courses and at the level of the study programme are related to each other.

Mapping and synergy in programme course outcomes have been carried out in preparation for accreditation to programmes in the study field. In each mapping matrix of the study programme of the study direction, corresponding results of study courses of the study programme shall be inserted opposite the results of the study programme, which helps to verify whether and how study

courses potentially direct the student towards achieving the results of the programme. The results of mapping of study programmes and analysis performed in the accreditation report shall be available at the self-assessment report of each study programme (Annex 20).

In academic year 2015/2016, within the framework of the Academic Development Project of the LU "good practice for formulating and evaluating study results in study programmes of the University of Latvia", the LU has developed a "Guide for the formulation and evaluation of study results". The manual includes the experience developed and implemented within the scope of the project in the further education programme of academic staff "methodology for the formulation and evaluation of study results", the purpose of which is to promote the competence of study programme directors and academics in the methodology for the formulation and evaluation of study results, promoting the identification and implementation of good practice in study programmes, implementing a student-centric study process based on study results and evaluation of student learning achievements. When starting studies at the FChem students are informed about the organisation and implementation of studies in the relevant study programme during the first study week. However, the planned study results, test methods, and evaluation criteria of each study course are defined in all study course descriptions available to students in the LU information system (LUIS) and the LU e-study site. Also "Procedures for Organisation of study examinations at the University of Latvia" (29.06.2015 Decision No. 211 of the Senate meeting, in accordance with Section 15, Paragraph 1 of the Law on institutions of higher Education and Clause 5.6, Clause 5 of the Constitution of the LU and Amendment: Decision No 235 of the LU Senate of 02.07.2018) expressly states that every teacher has a duty to present the organisation, requirements, evaluation criteria and procedures for the course acquisition to students during the first lesson and not to change these requirements and evaluation criteria during the term. In FChem, the acquisition of practical skills – e.g. development of project applications, acquisition of the business culture of individual countries, study of strategies of specific enterprises or organisations, etc. – is an important part of the acquisition of study courses and achievement of the specified study results. A lot of attention is paid to improving students' own work, allowing them to go into the details of individual issues by summarising the information gathered on a sequential basis during lessons. This uses both individual research and group working methods. Study courses on economic research methodology, statistics, etc. control the progress of each student in terms of study design, data selection, data collection methods, data transformations, model creation, new variable building, specification, evaluation and interpretation. As part of the study courses, each student is required to produce detailed presentations that are discussed during classes with members of the group and a lecturer.

The system for evaluation of learning outcomes shall be determined by the Education Law that the basic principles and procedures for evaluation of acquired education shall be regulated by the State education standards. The procedures for obtaining professional qualification shall be determined by the Law on Vocational Education and the Law on higher Education, which also regulates the evaluation of acquired academic higher education. The acquisition of education in accredited educational programmes shall end with State examinations. The assessment of learning achievements shall be carried out on a 10-ball scale based on the following criteria:

- The extent and quality of knowledge acquired;
- Acquired skills and competences;
- Attitude towards learning;
- Development Dynamics of learning achievement.

From 2012, the LU centralised system for recording of success is in operation, in which the final evaluation of study course acquisition is calculated according to the algorithm specified in the course description, taking into account the assessments obtained during the inter-tests and the final examination.

The organisation of study course examinations and evaluation of student achievements shall take place in accordance with decision No. 211 of the LU Senate of 29.06.2015, “Procedures for Organisation of Study Course Examinations at the University of Latvia”, which is applicable for evaluation of full and part-time study results registered in LU study programmes at all levels.

The tests may be carried out in writing or orally or in combination (written and orally). The form of examinations and methods corresponding to the teaching methods used in the study process shall be chosen for evaluation of the achievements of students. The results of studies in study programmes shall be evaluated according to two indicators:

1) quality indicator – assessment on a 10-point scale, taking into account external regulatory enactments;

2) quantity indicator – credits by total number of hours per course of study.

Each course must be subject to examination (inter-tests). A course with 2 credits should include at least one, a course with 3 or 4 credits at least two, and a course with 5 or more credits three tests.

Types of inter-tests may be: checklists, tests, reports, trials, appearances with scientific papers, as well as other forms of knowledge testing appropriate to the specific nature of the study course, by which each student's knowledge is tested according to the same criteria for all participants in the study course. The number and type of inter-tests are defined in the description of each study course (which is available on the e-study site). At the end of each study course there shall be a final examination of the study course: examination or defence (for study work, practice or final work). In order for a student to obtain credits for taking a study course, it is mandatory for all students to pass an exam. The legal act of the LU “Procedures for organising examinations of study courses at the University of Latvia” allows the study to be evaluated as successful even if the examination has been passed unsuccessfully (if such possibility is specified in the description of the study course). However, the FChem provides for stricter requirements and applies equally throughout the study field the principle that the examination must always have been passed successfully in order to obtain a final assessment.

The legal act of the LU provides that the overall assessment of study course acquisition shall consist of: the total assessment of the inter-tests (not less than 50% of the total assessment) and the assessment obtained during the examination (not less than 10% of the total assessment), but the proportional distribution of these inter-tests and examination assessments in determining the final grade may be specified in each course description. The description of the courses of FChem is not dominated by a single approach, but the description of each course contains a strict percentage breakdown, e.g. for semester inter-tests, reports, etc., and exam marks, while the LU legislation is implemented. For example, in the undergraduate course “Psychosocial risks at work” (Medi6027), which is to be taught in several study programmes, the following breakdown is planned: Attendance of lectures is optional; Attendance of seminars is mandatory; Inter-tests: test1- 30%; test 2 -30%; exam 40%. The Masters level study course “Occupational environment expertise” (Chem eng. 5001) provides: attendance of lectures is optional; attendance of seminar classes and practical work is mandatory. The evaluation of the work performed during seminar classes and the evaluation of the submitted homework shall constitute 60% of the mark, written examination (final) work shall constitute 40% of the mark.

The total assessment of study course acquisition shall be calculated in the LU centralised system for recording of achievements according to the algorithm specified in the course description, taking into account the assessments obtained during the inter-tests and examination, and shall be registered in the test report. The study course descriptions in e-studies contain complete information where students can become acquainted with the criteria, conditions and binding

procedures for the evaluation of student achievements in https://estudijas.lu.lv.

According to the specifics of the study course, lecturers may also determine the requirements for attending classes. In the FChem, prevails the approach that attendance at lectures is optional prevails, but attendance at seminars is made mandatory or partially mandatory in many courses (specifying specific seminars in the course description for which attendance is mandatory). The supervision of lectures and seminars shall be performed by the teachers of the relevant study courses. Such guidance has already had a positive effect in practice and the drop-out of students, which was due to the consequences of students being able to attend freely, has decreased.

In FChem, an inter-tests may be taken only twice, and repeated tests shall be possible only at a specified time and place notified at least one week before the inter-test takes place. In turn, students can take exams three times. At the third time of taking the examination the study work shall be evaluated by the Commission consisting of three lecturers who have not participated in the evaluation of the previous examination work. Two examinations shall be planned within the framework of a session, however the third time of taking an examination in all study courses shall be planned during the registration week of the autumn semester.

If the student has not arrived for the final examination of the course within the specified time period, the teacher shall make a note “did not attend” in the test report and shall be accounted for as the time when the examination was taken, except in cases when the dean of the faculty (or his or her authorised person) determines that the student has not arrived for the examination due to objective reasons, which shall be attested by the relevant documents. The Commission for the acceptance of the final examination of a repeat course in the composition of three teaching staff shall be approved by an instruction of the dean of the Faculty. A teacher who has initially accepted a test shall not be included in the composition of the Commission, but may be invited to a meeting of the Commission for explanations. The evaluation in the LU e-study environment shall be entered and the minutes signed by the chairperson of the Commission. The student must re-register for the course in the following cases:

1) the student has unsuccessfully taken the final examination of the course three times;

2) during the term the student has not fulfilled the scope of the requirements specified in the course description, which entitles him or her to take the final examination of the course and the performance of which is possible only by re-learning the course.

As of 2021, Senate Decision No. 2-3/48 approved “Regulations for academic integrity at the University of Latvia”, which stipulates that a student who has been suspended from the final examination of the course regarding violation of the Regulations regarding academic integrity in the LU is entitled to re-take the final examination of the course not sooner than next semester. Re-taking of the final examination of the course, taking thereof after the end of the term, if the student has not arrived for the examination of the course during the term without a justified reason, as well as re-acquisition of the course shall be paid services, the pricing of which for each academic year shall be determined by an order of the LU. Order No 1/288 of the Rector of the LU of 20.07.2019 on pricing of paid services of the study process. It is not permitted to re-take the final examination of the course, if a successful assessment has been received regarding it, except the case specified in Paragraph 47.2 of these Regulations, which provides that the dean may, upon a proposal of the teaching staff, decide on the repeated conduct of the course examination, if significant procedural violations have been committed in the course examination. In such case, the student has the right to repeat the course examination free of charge.

Examination of study courses in study programmes of the study direction shall be taken mainly in writing, but sometimes also verbally. In all courses of study, according to the specific nature of

the course, the elements of the final examination of the course may be theoretical questions and practical tasks. It is intended to describe the specific course of each study programme in the "Internal Security and Civil Defence" course of study. Such requirements are intended to prepare high-level, appropriate expertise for the labour market.

The conformity of evaluation methods and procedures for achieving the objectives of study programmes and the needs of students shall be discussed at meetings of the Study Field Council, with the participation of programme directors and student representatives. Consequently, as a result of the analysis of systemic assessment methods and procedures for achieving the objectives of the programmes of conformity studies, the FChem implements a system of assessment appropriate to the needs of students.

Although the State Education Quality Service has not laid down precise criteria for rounding off the marks between two assessments in the education regulations, in cases where there is a decision between a higher and lower assessment and where the course description does not contain such a point, the mathematical principle applies, i.e., if the number after the decimal place is five or more, the rounding is done upwards, but if the number after the decimal place is less than five, the rounding is done downwards. In that regard, too, there is, therefore, a precise and formerly certain order of assessment and methods for each student.

The types of final examinations and the principles for evaluation shall be determined by the "Regulation on final examinations at the University of Latvia" (decision of the Senate No. 183 of 27.12.2011) and order No. 1/38 of the LU of 3.02.2012 Requirements for the development and defence of final work (Bachelor's, Master's, diploma's and qualification work) at the University of Latvia (only in Latvian)

In accordance with the Regulation, the types of final examinations are 1) final examinations (Bachelor's and Master's final examinations) and 2) State examinations – i.e. State examinations of vocational education study programmes (including qualification examinations).

In the field of studies in both academic and professional undergraduate programmes, the final examination shall consist in defending the Bachelor's work, while in academic and professional master's programmes the final examination shall consist of defending the Master's work.

In both academic and professional bachelor programmes, the final examination consists of the defence of the Bachelor thesis, while in academic and professional master programmes, the final examination consists of the defence of the Master thesis.

In accordance with the LU Order No.1/38, additional criteria may be established for the evaluation of final theses, which shall be approved by the Faculty Council upon the proposal of the Board of Study Programmes. The Faculty Council has approved the Methodological Instructions for the Preparation and Defence of Final Theses. Final theses are completed by students individually. The evaluation of the final examinations is carried out by the final examination commissions, which are approved by the Vice-Rector of the relevant field of the LU upon the proposal of the Faculty Councils. The Board shall be established in each study programme. The decision on the assessment shall be taken by the Commission on a collegiate basis. At least 3 members of the Commission - the Chairperson or Vice-Chairperson, the Secretary and one member of the Commission - must be present for the meeting to be valid. The decision on the final examination marks shall be considered in a closed meeting of the Commission after hearing all the students scheduled for the final examination. The decisions of the Commission shall be taken by open vote with a simple majority.

With regard to the professional master's study programme, it should be particularly noted that the voting members of the programme committee include representatives of various professional

organisations and institutions (e.g. Romāns Putāns, Dr.sc.admin., expert of the Latvian Ergonomics Society, Ričards Balnass, Mg, Sandis Babris (Director of Brabantia Latvija factory), Ziedonis Liepiņš, owner and board member of the competent institution for occupational protection "Aina" Ltd., as well as in the professional bachelor study programme, Māris Dambis (board member of the competent institution for occupational protection SALVO Ltd.), Linda Matisāne (Head of the National Contact Point of the European Agency for Safety and Health at Work, State Labour Inspectorate), Laima Beroza (Labour Protection Expert at the Employers' Confederation of Latvia), who participate as members of the Commission in the defence of the bachelor and master theses of the study program ''Labour protection''. The evaluation of the Study Field is consistent, fair, and equally applied to all students, regardless of the form and type of study they choose, and is carried out in accordance with well-defined procedures.

Both course assessments and final examinations provide an opportunity for learners to demonstrate the extent to which they have achieved the expected learning outcomes, as teachers explain any shortcomings in their solutions or answers and point out aspects that should be taken into account when retaking certain examinations or in future professional roles.

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.

To control, analyse, and forecast the dynamics of the number of students, the LU collects data on:

- characterising number of applicants and matriculated students and their profile, such as secondary education institution, year of graduation, assessment obtained in secondary education examinations, age, gender, previous higher education and the assessment obtained in its examinations;
- number of students, broken down by faculties, study programmes, study levels, study years, forms and types of studies, source of financing for studies, status of studies – ex-matriculated as having not completed the academic obligations, ex-matriculated as having not settled the financial obligations, ex-matriculated as a degree holder (graduate), on academic leave of absence.

To control the progress of student’s studies and the implementation of the programme, the LU collects data on:

- interim assessment and final examination of student’s study courses, broken down by type of assessments, final results of final examinations, weighted average grade; data are collected once a semester;
- completion of the study programme, in accordance with the requirements set for the acquisition of the programme, broken down by study semesters, parts of the programme (Compulsory part, Restricted elective courses, Elective courses and others, according to the structure of the programme); data are collected once a semester;
- students' academic debts in credit points by study semesters, parts of the programme, study courses; data are collected once a semester;
- fulfilment of the tuition fee schedule provided in the student agreement, broken down by study programmes and semesters.

To obtain information for planning and efficient use of study resources, the following statistical information is collected in connection with study programmes:

- financing of study places, broken down by state-funded, the UL funded and student-funded study places;
- the number of student scholarship recipients and the number of study and student loans.

To evaluate the satisfaction of students, graduates and employers with the study quality and its results, as well as to implement the necessary improvement measures, the LU regularly organises and compiles data from the following surveys:

- a survey on study courses and work of teaching staff;
- a survey at the start of studies;
- a survey of first-year students on study experience;
- a survey of final-year students on study experience;
- a survey of students, who discontinue studies;
- graduate survey;
- employers survey.

A survey on study courses and work of teaching staff is implemented in the LUIS every semester and is for all students (including internship study courses). With this survey the LU can learn the students' opinion on the content of relevant study courses in the specific semester and provides assessment of the teaching staff's work. The information obtained through this survey helps to improve the study process, eliminating imperfections and improve the study quality.

A survey at the start of studies takes place in the LUIS once per academic year. With this survey the motivation of students in choosing the university and study programme; sources of obtaining information about studies at the LU are ascertained, as well as the assessment of application and registration process is obtained. This survey helps the LU to build communication with potential students in the coming years, and to improve the admission process.

A survey of first-year students on study experience takes place in the LUIS one per academic year to learn students' opinion on different study aspects and on what support is necessary when starting studies. Thus, the information is obtained for improvement of study environment and promotion of student adaptation.

A survey of final-year students on study experience takes place once per academic year. With this survey the assessment of potential graduates on further development of the study programme, improvement of study process, quality and study environment is ascertained.

To ascertain main reasons for study discontinuation and to promote the decrease of student dropout rate, **a survey of students, who discontinue studies** is conducted. The survey is conducted in the LUIS throughout the academic year.

The aim of **the graduate survey** is to collect information about the professional activity and further course of life of graduates, as well as to ascertain the opinion of graduates on the acquired education in the LU. The aim of **the employers survey** is to find out the opinion of employers on the knowledge, skills and competence acquired by the graduates of the LU correspondence with the requirements of the labour market, as well as to obtain proposals for the improvement of the study quality. Surveys at their discretion are organised by programme directors using prepared surveys by the Academic Department.

Most of the regular surveys–survey on study courses and work of teaching staff, a survey at the start of studies, and surveys on study experience–results are gathered in two ways: (1) The summary of survey results for each study programme is generated separately, automatically by the

LUIS; (2) The summary of surveys (except the survey on study courses and work of teaching staff) results on the LU as a total and on faculties is prepared by the Academic Department after the conclusion of the survey process, and they are published on the *My Portal*. The summary of a survey of students, who discontinue studies, results is prepared by the Academic Department, and they are published on the *My Portal*. However, the summary of graduate survey and employers survey results is organised at their discretion by study programme directors.

Survey results published on the *My Portal* are available to every student and employee of the LU with the username and password assigned to them. However, accessibility of the summary of survey results on the LUIS is different for various user groups. Moreover, similarly as students' grades some of the survey results, for example, assessment of study courses and work of teaching staff, is restricted access information.

Surveys on study courses and work of the teaching staff are fully available to each respective member of teaching staff about their own implemented study course; to programme directors – about teaching staff and heads of teaching staff departments (head of department or subdepartment, head of study field, vice-dean, and dean), as well as the LUIS and student self-governments of faculties.

The rest of surveys–a survey at the start of studies and surveys on student experience–summaries of results about their own study programme are available to students and programme director; on study programmes attached to the position – head of department or sub-department, head of study field, vice-dean, and dean. Summaries of survey results on their own faculty are fully available to student self-governments of faculties, and on all study programmes to the LU SC.

When evaluating the results of the surveys in the reporting period (2013 - 2022), e.g. in the Master's study programme, it can be observed that the courses that were appreciated by the students are Health Promotion at Work (Medi5063), assoc. prof. Ž. Roja, Work Environment Expertise (Chem eng.5001), prof. H. Kalķis, Information Technology (DatZ5005), assoc. J.Logins, Occupational Toxicology (Chem5023)- assoc. prof. A. Prikšāne. In general, students positively evaluated the fact that the lecturers explained "useful things" for the future profession, the lecturers were available for consultations and indicated that they would like to study another course with the mentioned lecturers. In addition, students appreciated the possibility of having guest lecturers (e.g. in the course Health Promotion at Work (Medi5063), Work Environment Expertise (Chem. Eng.5001)). Students positively evaluate the relevance of the study courses to the course descriptions, and indicate that the organised tests have contributed to the learning of the study courses. Students indicate that the materials available in the E-environment helped them to learn the courses. Some students were also dissatisfied with the study course Civil Protection (Chemistry1059, taught by I. Nakurte) in the period 2018-2020. Students indicated that the recommended literature and materials in the study course (Chem1059) were not easily accessible, were not useful. On the negative side, students pointed out that the teaching staff did not clarify any uncertainties that arose during the study process, and that the test papers were not discussed, which would be useful for future studies. In these courses, students indicate that the materials available in the E-environment did not help them in their studies. Additionally, students point out that the pace of learning was too fast, so the topics were not understood, as shown by the low scores. This problem occurred because the civil protection course was taught to several study programmes at the same time and the number of participants exceeded 200. It should be added that now a solution has been found and there are no more such complaints from students, because the civil protection course is organised separately only for Master's students and a new teaching assistant has been recruited - assist. prof. R. Ražuks. In the Bachelor's study programme, for example, students most often gave positive evaluations if the lecturer was responsive, answered questions, provided additional explanations, if this was necessary for the best understanding of the

course content, as well as if the information contained in the course was useful and students saw opportunities to apply the knowledge gained during the course in practice. Students in the Bachelor's programme were critical of situations where the content was not sufficiently explained or was too complex for the students' prior knowledge, as well as where the course content overlapped with a previously studied course. In some cases, students were critical of situations where the tutor provided insufficient feedback, and other situations where communication with the tutor was insufficient. These problems have also been addressed in this study programme through the mapping of studies, which has helped to eliminate duplication of information in the courses, as well as the discussion of learning outcomes with the course tutors to ensure a student-centred approach to the study process. The three study courses most positively evaluated by students in the first-level professional study programme are Work Physiology and Fundamentals of Anthropometry (7.0); Electrical Safety (6.75), Establishment and Organisation of a Work Protection System (6.42), Chemicals and Their Safety (6.41). These courses are highly rated in terms of the performance of the teaching staff, the content and the delivery. In the context of the emergency, the process of organising the remote work, which was reciprocal on the part of both the teaching staff and the students, was very important. The lowest score in the reporting period was for the course Records Management and Business Correspondence (5.29), but this is still quite high compared to the average (7 is the maximum score). The main difficulty in this course was the extensive material presented in distance format (only during the Covid-19 pandemic).

Each year the head of the study field in cooperation with the study programme directors prepares a report on the operation of the study field and the programmes therein during the academic year. In the preparation of the report, statistical data is collected and analysed, and the obtained information is used for the evaluation and improvement of the study field. The report includes the following data, which are collected and analysed annually:

- number of students in programmes, showing the total number, number matriculated in the first academic year, number of graduates, dropout rate, separately identifying different forms, types and languages of study;
- outgoing and incoming mobility of students, their participation in exchange programmes;
- composition of the teaching staff, indicating the position, number of academic staff with a doctoral degree, mobility of teaching staff;
- the ratio of students to teaching staff;
- the number of employers in the sector involved in the implementation of the programme;
- summary and analysis of the results of a survey of students about the courses and the programme.

More detailed analysis and evaluation of the results of student, alumni and employer surveys and their use in improving the content and quality of studies are included in the self-evaluation reports of the study programmes.

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).

The target audience of the LU website https://www.lu.lv/en/ (hereinafter – the Website) is the LU

prospective and existing students, employees, cooperation partners, scientists, and the public.

Study programmes in the Study field are described on the Faculty's website: https://www.kf.lu.lv/en/ . Click on the study programme for more information on each study programme.

The Website is intended for access to and storage of public information, providing its visitors with an opportunity to familiarise themselves with the LU's activities as reflected in the digital environment on the internet.

The Website consists of the following sections:

- ROTATING NEWS – essential information of the UL through the visual identity of the LU, which has certain parameters and strengthens the image of the University and promotes its visibility in the digital environment.
- NEWS AND EVENTS – current affairs and planned events at the LU. The information is prepared by the Department of Communication in coordination with other LU structural units.
- DISCOVER LU – Information about studies, extracurricular activities, science.
- STUDIES – with subdivisions:
- College study programmes;
- Bachelor’s study programmes;
- Master’s study programmes;
- Doctoral study programmes;
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The information is prepared and posted on the Website by the Department of Communication in cooperation with the Academic Department and the Department of Study Service.

The STUDIES section in Latvian provides information on programme goals, objectives, learning outcomes, programme volume and duration, programme study language, information on job opportunities after graduation, as well as programme study plans. In case of questions, contact information is provided for further information. This section also publishes study-relevant information under the heading STUDY PROCESS – academic calendar, lecture timetable, tutorials, key documents and sample forms, information on mobility at HEI, recognition of experience/education, lifelong learning opportunities as well as references to the LU e-study environment and the LUIS.

The section contains information about the offers of the Library of the LU, information of the Career Centre, activities of the Students’ Council.

The two subsections STUDENT LIFE and EXTRACURRICULAR ACTIVITIES inform both existing and prospective students about student hotels, catering, parking and bicycle parking, mentor support, and information for people with disabilities. There is a wide range of information on how to enrich one’s extra-curricular life with sport, culture.

The ADMISSION (“*I want to study*”) section contains information for pupils, prospective and existing students. In this section, the pupils can get acquainted with the events and creative competitions organised by the respective faculty, the participation wherein and successful performance can give additional admission points. The prospective students may be introduced to the information on all levels of programmes, admission requirements, loans, and scholarship information, as well as opportunities for the renewal of studies on the Website. The prospective students will be able to familiarise themselves with the most frequently asked questions and answers, information on the Career Centre activities, preparatory courses, and classes for pupils.

Other Sections – *Science*, *Cooperation*, *About Us,* provide more information about the UL activities in research, projects, conferences, cooperation partners, normative acts, strategy, etc.

The Website https://www.lu.lv/par-mums/dokumenti/pasnovertejuma-zinojumi/ (available only in Latvian) contains Annual Study Fields Self-Assessment Reports.

The Websites of the structural units (faculties) prepare information on the programmes offered by the respective faculty and on the scientific activities of the faculty. Content blocks are the same as the ones on the LU official site, but more specific information is posted directly about the respective faculty activities.

Respective faculty website can be reached from the LU Website via the faculty reference.

If the text to be posted on the Website is submitted in a language other than English, a translation of the text into Latvian or a brief summary should be attached.

The heads of the LU departments are responsible for the preparation, correctness and updating of the information within the competence of their departments. The content administrators of the structural units' websites are responsible for maintaining the website, posting and regular updating of prepared information. For a given faculty, the person responsible for content placement is the marketing or public relations specialist or coordinator who administers the existing website, or an employee who has completed a short TYPO 3 content placement course in the Department of Information Technology.

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.

The system of the LU for financing the study field and the corresponding study programmes is based on *the Law on Higher Education Institutions*, the Cabinet Regulations No 994 of 12.12.2006 *the Procedures for Financing Higher Education and Colleges from the Funds of the State Budget*, No 445 of 05.07.2016 *the Regulations Regarding Remuneration of Teachers* and other external and internal regulatory enactments.

For the successful implementation of study fields, the LU must ensure sufficient financial resources for the entire study process, including the remuneration of the teaching staff, the library and other resources related to the implementation of studies, as well as the development of the study programme. The main costs related to the implementation of the study process are the remuneration of the teaching staff and the costs related to the organisation of the study process.

The remuneration of the teaching staff includes:

- Costs of contact hours (e.g., lectures, seminars, practical and laboratory work).
- Independent work management, consulting, and examination costs.
- Costs of methodical work (preparation for classes, preparation of new courses, etc.).
- Student work management and evaluation costs, including reviewing.
- Internship management and organisation costs.
- Costs of scientific work of the teaching staff to ensure the development of new study

materials.

With the LU Rector’s Order the norms of the formation of the remuneration of the teaching staff are determined in the *Planning and Accounting Regulations for Academic Personnel’s Workload* (the LU Order No 1/469 of 07.12.2016). Considering the specifics of studies and available resources, the management of the faculties may set different regulations in coordination with the vice-rector of the respective field.

Costs related to the organisation of the study process:

- General staff costs include the costs of study support staff remuneration, organisation, and provision of faculty activities.
- Other costs are other direct costs related to the specific study programme, such as rent of external services, premises, additional equipment lease, transport lease, etc.
- Infrastructure costs – costs of premises, including utilities, repairs, and maintenance.
- The costs of property and services include the material and methodological provision of the study programme, including technical equipment, visual materials, professional development (experience exchange trips, training), etc.
- Indirect costs include the costs of the University's overall operational support (IT, finance, personnel, marketing, etc.) and investment in development.

To estimate the amount of funds required for financial provision, the UL calculates the prime cost of each study programme according to the methodology developed by the UL, which takes into account all the costs of providing the study process described above and information on the specific study programme plan, involved teaching staff, planned number of students, and other aspects, thus ensuring the reliability of the forecasts.

Financing of studies at the LU – sources of financing

To provide the necessary funds for the study process, the LU uses (1) the state budget subsidy (considering the base funding, programme level and field of study) from the Ministry of Education and Science and (2) tuition fees.

Tuition fees at the LU are determined considering:

- the prime cost of the study place, taking into account all the costs of the study process;
- tuition fees for similar programmes at other HEI;
- the interest of prospective paid students in the study programme;
- the estimated financing of the study place from the state budget;
- the opinion of the LU Students’ Council.

Tuition fees are set at the end of each year for the next academic year to ensure timely availability of information. Fee for the student does not change during the studies, unless the fees vary from year to year in the programmes, but even then, they are all determined at the beginning of the studies.

Income from lifelong learning or other services, as well as accumulated unit funds, may also be used for curriculum development (development of new courses, improvement of existing courses, methodological support, and other curricular aspects). If necessary, financial support can be obtained from the LU Study Quality Improvement Fund, where a sum is set aside annually in the LU budget to address various faculty issues, including the development of new study programmes and the development of existing study programmes.

Indirectly, research funding sources for academic staff are also channelled to the development of study programmes, e.g., for research activities, participation in international projects, publication of

scientific articles, preparation of international project applications, organisation of scientific events at the LU, implementation of research development projects and fulfilment of long-term commitments, etc. By participating in these activities, academic staff increase their professional and research competence, often also involving students, which has a positive impact on the quality of the study process.

For data on available funding for a specific study programme, see in section(s) 3.3.3 of a programme.

Financing of studies at the LU – reallocation of received funding

All income received from the state budget and tuition fees, as well as from other sources are used for financing the study process, after prior deduction of indirect expenses for centralised expenses in accordance with the current redistribution procedure, the LU allocates for use by the faculties.

Faculties independently manage received funding within the current year's budget. The dean and the executive director of the respective faculty are responsible for the rational use of financial resources and perform operational financial management.

Actual returns are recorded at the faculty level, without separating results for each programme or study field. At the same time, the management of the faculty monitors the outcomes of the study process, the dynamics of the number of students and the factors influencing it, the balance of the prime cost of a particular programme with the state budget subsidy and tuition fees and, if needed, makes the necessary adjustments in the organisation of the study process to ensure the long-term viability and development of the study field of the faculty.

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 University of Latvia's study process takes place in the Nature House. The Nature House was put into operation in 2015. The total indoor area is 18540 m2, with 30 classrooms, 45 student teaching laboratories and 69 research laboratory rooms. All classrooms have a projector and laptop for presentations, whiteboards. Interactive whiteboards are also available in some classrooms. Sound equipment and recording facilities are also available in the large classrooms on the ground floor of the Nature House. Students can also use the Science House for their studies, research and work, which is due to be commissioned in 2019. It has a total indoor area of 20018 m2, 15 lecture theatres, 8 seminar rooms, 78 scientific and teaching laboratories. The basement of both the Nature House and the Science House houses the laboratories of the faculties and scientific institutes. The buildings are accessible to people with reduced mobility - there are several lifts, and the sanitary facilities are properly equipped. The first two floors of the Nature House are accessible to students 24 hours a day.

In the Nature House of the University of Latvia, there is all the necessary infrastructure and equipment to implement study programmes. Students have access to a library, a cafeteria, modern classrooms with Internet and multimedia facilities, as well as computer classrooms with appropriate software. Students also have access to e-resources of the University of Latvia, including databases and software. The facilities provide excellent accessibility for students and teaching staff. In case of need, students have the possibility to use the LU hostel. Five computer rooms (the largest with a

capacity of 20 workstations) are located in the Nature House. Both Windows and Linux operating systems are available in the computer rooms. Microsoft Office applications, statistical software (R, SPSS, PC-Ord), domain-specific software are available. LU offers students and staff the possibility to obtain Microsoft Office 365 ProPlus and SPSS software for a private computer free of charge for the duration of their studies (or employment contract).

For teaching and research purposes, specific application software (ArcGIS, Bemese, CRYSTAL14, CrysTraMo, DFHBF, Eviews, FiMar, Geomatica, Idrisi, Mathematica, Matlab, Photomod, WUFI) is also available.

The faculties implementing the study programme have at their disposal modern equipment, which in many cases is unique not only at the national level, but also in the Baltics or the wider region. In addition to research, access is provided to the common facilities of the Research Centres of National Importance, which are located in various Latvian scientific institutions.

A cooperation agreement has been signed with the Estonian University of Life Sciences, which will provide an important social and engineering contribution to the doctoral programme "Human Factors, Occupational Safety and Health". The Estonian University of Life Sciences is open to more cooperation and will offer PhD students research in specialised laboratories: the Laboratory of Work Technology, the Laboratory of Physical and Mental Workload and the Laboratory of Occupational Safety.

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.

General description of LU Library

The LU Library is included in the Library Register of the Ministry of Culture (BLB1000) and accredited until 2027 in the status of national library (accreditation certificate No 22C of the Ministry of Culture).

Access to Library information resources and services, opening hours

The basic principle of the library’s work is the accessibility of its services to all users.

The eight sector libraries offer all the services facilitating independent studies in accordance with *the LU Library Terms of Use* (the UL Rector's Order No 1-4/9 of 7 January 2021).

The opening hours of sector libraries are conveniently adapted to user’s needs. The libraries are open from 9am to 8pm on weekdays – with some of them open from 9am to 6pm – and from 9am to 5pm on Saturdays. The Natural Sciences Library and the Library of the House of Science are open 7 days a week, 24 hours a day. Three of the sector libraries are open for visitors throughout the year, including summer.

The Science Library, which houses the Human Factors, Occupational Safety, Ergonomics, Occupational Health and Safety and Occupational Health collections, is open 24/7 at students' convenience. The collection is freely accessible to users. The Natural Sciences Library is housed in the Nature House of the Academic Centre of the University of Latvia (Jelgavas iela 1), with a total surface area of 662.80 m².

The Library has more than 100 workstations, including 20 computer workstations.

Free basic services and paid services

The LU Library provides free basic services and paid services in accordance with *the Library of the UL Paid Services and Price List* (the LU Rector's Order No 1-4/387 of 10.08.2021).

More information on the UL Library website https://www.biblioteka.lu.lv/en/ – section *Services*.

User training

The Library of the LU actively works with its target audiences – students at all programme levels, academic, research and general staff – to promote information literacy and to provide in-depth knowledge and skills at working with electronic resources. More information on the UL Library website https://www.biblioteka.lu.lv/en/ – section *Studies*.

Library collection, collection replenishment procedure

The LU Library compiles the collection in accordance with the fields of studies and academic work of the LU and the requirements of its study programmes for all levels of the LU studies – bachelor's, master's, doctoral, as well as for scientific research. The priority in replenishing the collection is the purchase of e-resources.

New acquisitions for the collection (acquisition of books, subscriptions for databases and periodicals) are conducted in accordance with the LU centralised funding, which is approved annually by a LU order.

The Library ensures the purchase of information resources according to the orders of the academic staff of the LU, the proposal of the student self-government or the suggestions of the Library staff, which are entered into LUIS and have been approved by the dean of the faculty or the executive director.

In 2022, the Library makes available 1.8 ml information resources to its readers. In accordance with the LU study and research infrastructure, the LU Library collection is assembled in 8 sectoral libraries and Repository.

Literature available in the LU Library for the implementation of Study field "Internal Security and Civil Defence

Printed publications
LU Library collection, issued 01.01.2000 - 31.12.2022

Names/exemplars						
Books	Brochures (up to 48 pages)	Periodicals	Conference materials	Theses	Summary of theses	Digital (CD)
716/3428	40/230	13/324	10/19	6/6	22/38	4/5

Total: **811** names **4090** exemplars

Table 2.3.3.1 shows the number of printed publications published in the period from 2000 to 2022, by type of publication, which are in the collection of the LU Library and correspond to the implementation of the study field. The breakdown by type of publication is dominated by books (number of titles) - 69% and pamphlets - 15%. Brochures include various guidelines and informative explanatory materials.

In order to select the most accurate titles in the Electronic Common Catalogue (ECC) of the National Libraries, the selection was based on keywords (ergonomics, human factors, occupational safety, occupational health, production engineering, work environment, workplace risks, management science, occupational accidents, occupational diseases in general, occupational health promotion and their corresponding Universal Decimal Classification (UDC) system indexes.

Among the newest titles (books) are titles that are held in multiple copies in the LU Library, which means that a significant number of students will be able to use them outside the LU Library premises. These are:

- Skalberga I., Kaļķis H., Roja Ž. LEAN Organised workplace: 6S practical tips. Riga: Latvian Ergonomics Society, 2022., 96 pp. (ISBN: 978-9934-89-662-0) (15 copies)
- Roja Ž., Kaļķis H. Ergonomics of working with digital devices. Practical tips. Riga: Latvian Ergonomics Society, 2022, ISBN: 978-9934-89-661-3) (20 copies)
- Babris S., **Kaļķis H.**, Pikss M., Sorokins V. Practical LEAN. Jelgava: Jelgavas tipogrāfija, 2021, 321 pp. ISBN: 978-9934-23-341-8, – collective monograph (10 copies).
- **Human factor and ergonomics at work: scientific monograph /** Ženija Roja and Henrijs Kalķis, Riga : Latvian Ergonomics Society, 2020. 294 p.: illustrations, diagrams, tables; (76 copies)
- **Computer ergonomics and health promotion at work /** Ženija Roja, Henrijs Kaļķis, Ināra Roja ; Latvian Ergonomics Society. Riga: Latvian Ergonomics Society, 2018. 54 p.: illustrations, diagrams, tables; (81 copies) (etc. publications).

The collection of the LU Library also includes publications from the world's leading publishing houses, such as:

- Goonetilleke R.S., Xiong S., Kalkis H., Roja Z., Karwowski W., Murata A. (Eds.) Advances in Physical, Social & Occupational Ergonomics. USA: Springer, Cham, 2021, XVII, 521 p. https://doi.org/10.1007/978-3-030-80713-9 ; https://link.springer.com/book/10.1007/978-3-030-80713-9#about
- **Modern management** : concepts and skills / Samuel C. Certo, S. Trevis Certo. edition. Harlow, England : Pearson, **2019.** 573 pp. ; diagrams, illustrations, tables;
- **Visual ergonomics handbook** / edited by Jeffrey Anshel. Boca Raton : CRC Press, **2019**. 16, 214 pp. : diagrams, illustrations, tables;
- **Human factors and ergonomics in practice** : improving system performance and human well-being in the real world / edited by Steven Shorrock, Claire Williams. Boca Raton : CRC Press Taylor & Francis Group, **[2017]**, xxxiv, 422 pp. : diagrams, illustrations, tables;
- **Measuring occupational performance** : supporting best practice in occupational therapy / edited by Mary Law, PhD, FCAOT, McMaster University, Hamilton, Ontario, Canada, Carolyn Baum, PhD, OTR/L, FAOTA, Professor, Occupational Therapy, Neurology and Social Work, Elias Michael Director, Program In Occupational Therapy, Washington University School of Medicine, St. Louis, Missouri, Winnie Dunn, PhD, OTR, FAOTA, Professor, Department of

Occupational Therapy Education, University of Kansas, Kansas City, Kansas. 3 edition. Thorofare, NJ : SLACK Incorporated, **[2017],** xx, 457 pp. : ilustrations;
- **Management** / Ricky W. Griffin. 12th edition. Mason, OH : Cengage Learning, **,** xxvi, 704 lpp. : diagrams, illustrations, tables. (etc. publications).

Publications (books) in the collection of the LU Library in multiple copies:

- **Occupational health and risks** / Valdis Kaļķis, Ženija Roja, Henrijs Kaļķis ; [scientific reviewers: Andris Freivalds, Jānis Zaļkalns, Jānis Dundurs ; literary editor Jānis Loja ; cover artist Iveta Bambere]. Rīga : Medicīnas apgāds, 2015, 533, [1] pp. : diagrams,illustrations, tables; (34 copies)
- **Management /** Valērijs Praude. Third, revised and enlarged edition. Riga **:**Burtene, **2012**, 2 vol. : diagrams, illustrations, tables; (94 copies)
- **Occupational medicine** / Maija Eglīte ; [Scientific Editor: Janīna Danusēviča].

2nd revised and enlarged edition Rīga : Rīga Stradins University, **2012**, xix, 834 pp. : il., tab.; (51 copies)

- **Occupational safety /** Latvian Free Trade Union Confederation, Ministry of Welfare. Riga : Latvian Free Trade Union Confederation, 2010, 278 pp. : il.; (4 copies.)
- **Methods of risk assessment of the working environment /** Valdis Kalķis. Riga : Latvian Education Foundation,2008, 242 pp. : il.; (42 copies) (etc.publications).

Publications from the world's leading publishers:

- **Strategic operations management** / Steve Brown, John Bessant, and Richard Lamming. 3rd edition. London : Routledge, **,** xiv, 497 pp. : diagrams, illustrations, tables
- **Management** / Peter F.Drucker. An abridged and revised edition of : Management: tasks, responsibilities, practicees. London : Routledge, , 575 pp.;
- **Office ergonomics** : practical applications / Céline McKeown. Boca Raton, FL : CRC Press, **[2008],** xv, 249 lpp. : illustrations;
- **Emotion management in the workplace** / Sharon C. Bolton. Basingstoke ; New York : Palgrave Macmillan, c**,** x, 190 pp.;
- **The new workplace** : a guide to the human impact of modern working practices / ed. by David Holman et. al. Chichester (West Sussex) : Wiley, , XIV, 450 p. : ill., tab. (etc. publications).

Conclusion: Printed information resources in the collection of the LU Library, in terms of their content and number, generally correspond to the implementation of the field of study.

The level of digitalisation of the collection

In cooperation with the LU Department of Information Technologies, the LU Library ensures the free online access to the e-resources repository of LU https://dspace.lu.lv/dspace/. For the convenience of users, a mobile version of the repository is also offered. The Library offers digitalised publications, which are subject of prohibition of copyright for use online, on-site in the reading rooms of sector libraries.

At the moment e-resources repository consists of more than 1 500 publications in the study field

“Internal Security and Civil Defence”.

E-resources

Following to *the LU Strategic Plan*, the LU Library is increasing the share of e-resources and developing remote access to e-resources.

By modernising the availability of electronic resources, the latest technology web service *Primo Discovery* and SFX has been introduced in the LU Library.

In 2022, the LU provides access to 42 e-resource platforms (e-books platforms, e-journals databases and individual subscribed e-journals, reference resources and tools, mixed-format databases). In total there are 17 477 full-text e-journals (including the individual subscribed e-journal titles), 205 306 e-books, almost 5 million full texts and abstracts of doctoral and master's theses from around the world available through subscriptions. The LU also provides links to 174 credible open-access databases with multi-format materials.

Each year the Library offers, on average, 110 new e-resource titles. Overall, on 28.12.2022 the LU Library provides 1447 purchased single e-book titles with ~ 198 140 e-books available on *ProQuest Ebook Central Academic Complete Collection*.

Information about the e-resources is available on the LU Library webpage https://www.biblioteka.lu.lv/en/ sections *E-resources* from *A to Z* and *E-resources by discipline*, as well as on *Mans portāls* section *Datubāzes*.

The LU provides remote access to the subscribed e-resources (databases, e-book platforms) outside the LU network by logging in with a LUIS username and password.

Subscriptions to e-resources in selected fields, which include material in the field of study Internal Security and Civil Defence.

ClinicalKey – *Elsevier* electronic medical information resource. It covers 52 specialities and is intended for research, clinical practice and student training, which includes various types of information resources: more than 650 full-text journals, more than 1,150 full-text books, 1,400 reports containing brief information and disease recommendations. Also included are 800 FirstConsult summaries, 5,000 practical guidelines, more than 3.4 million images, tables, charts, more than 40,000 ProceduresConsult materials, and more.

EBSCO PsycARTICLES – A database of full texts and reviews of scientific papers by the American psychological Association (APA) in psychology covering the period 1985 to the present day.

HeinOnline – a database of full texts of legal journals containing more than 1,800 legal journals as well as full-text legal books, annuals, U.S. laws, treaties and other documents.

Jurista Vārds – the largest periodical, specialised, legal edition in Latvia, which engages both legal scientists and legal practitioners in a joint discussion on possibilities for improvement of the Latvian legal system, is the most important source of information on legal developments in Latvia.

MarketLine – statistical database containing statistics on more than 3 000 major cities in the world from different socio-macroeconomic statistical aspects.

Orbis – a statistical database that provides information about about 300 million global public and private companies.

Passport - an online market research tool the supports studies and research in various fields of science - International Business and marketing, Economics, International relations, Tourism, and Social Sciences.

Thomson Reuters Westlaw – legal research database containing more than 1000 legal journals, national legislation, case law, news, archive and document collections, etc.

UpToDate – evidence-based electronic information resource in medicine that helps doctors improve the quality of patient care. The electronic resource covers encyclopaedic and reference records on more than 10,500 topics in 22 medical subsectors, which also include more than 28,000 schedules, links to summaries of articles in the Medline database, links to full texts, information on medicines, etc.

Westlaw UK - Database of legal and legislative acts, comments and judicial decisions of the United Kingdom and legal materials of the European Union.

Multidisciplinary e-resources subscribed to the LU, which includes materials for the LU doctoral programme "Human factor,Occupational Helath and Safety at Work"

Cambridge Journals Online – a database of full texts of multi-industry e-magazines by Cambridge University Press, which offers the ability to search for information in more than 300 scientific journals as well as related internet resources. Full texts are available in the database in sectors such as human factor, working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, promotion of health at work, etc. The LU has an e-Resource archive available until 2019.

EBSCO *Central & Eastern European Academic Source* – the database offers the full texts of more than 400 journals in fields such as economics, politics, medicine, law, information and library science, literature science, linguistics, history and sociology, relevant to the Central - and Eastern European region.

Emerald eJournals Premier – multisectoral database of full texts of e-journals containing information in the fields of human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc. An e-Resource Archive is available in LU until 28.02.2020.

JSTOR – a database of magazines, books and sources, containing magazines from leading publishers: Sage publications, Springer, Taylor & Francis, Blackwell Publishing, Cambridge University Press, Oxford University Press, John Wiley & sons etc. The chronological coverage of magazines extends back to the origins of their publication, offering materials in sectors such as human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc.

Latvijas standarts – Document set of the Latvian national Standardisation institution. Access to the online reading room of Latvian standards in the LU Library has been provided to the full texts of more than 44 000 documents of Latvian standards in electronic format (national, adapted European (EN) and international (ISO, IEC) standards and historical versions thereof, without limitation of ICS groups). The stock of standards is updated and supplemented by pre-publication of standards, new versions, translations, amendments and adjustments thereto.

LETA Ziņas, Arhīvs un Nozare.lv – information from the press publications of Latvia is available operationally.

Oxford Journals Online – the collection provides access to more than 350 authoritative and leading Oxford University Press journals, released in collaboration with the world's most important scientific organizations. The database includes full-text journals with high quotability index

indicators in scientific fields such as human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc.

ProQuest Dissertations & Theses Global – the broader database of theses and master's works globally contains nearly five million jobs across a variety of industries: natural and medical sciences, humanities and social sciences.

ProQuest Ebook Central Academic Complete Collection – ProQuest's collection of electronic books available on ProQuest eBook Central. It has access to some 198,140 leading publishers in all sectors, including e-books from many university publishers.

SAGE Journals – Publisher SAGE's full-text magazine database featuring articles from more than 1,100 magazines. The database provides materials in various sectors, including: the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, promotion of health at work, etc.

Sage Research Methods – a library of research methods of more than 1000 books, reference publications, journal articles and other resources in various sectors, including human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc. SAGE Research Methods is an important online tool for researchers. Two of them are available in LU - SAGE Research methods - books and Reference and SAGE Research methods bases.

ScienceDirect – database of the publishing house Elsevier in natural and technical sciences, life sciences and medicine, as well as in humanities and social sciences. The database contains information about several thousand magazines and books released by Elsevier. LU has the full texts of around 2,650 magazines, mostly from 2002 to the latest magazine number, as well as over 350 e-books.

Scopus – publishing house Elsevier's database of bibliographic and citation information from multidisciplinary scientific publications, which contains records of more than 21,000 magazines, 86,000 e-books and 6.8 million conference materials, as well as 27 million patents. The database covers sectors such as human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc.

SpringerLink Contemporary Journals – the company's Springer Nature magazine full text database, which offers access to more than 6 million articles from more than 3,400 magazines covering fields of science and social sciences.

Taylor & Francis Social Science & Humanities Library – provides access to full texts from more than 1100 scientific journals. The broad thematic coverage includes sectors: behavioural sciences, job security, business, education, media, politics, regional studies, health and social care, sociology, anthropology, art, humanities, etc.

Web of Science – the database contains the most important scientific information on more than 12,000 journals, offering bibliographic and quotation information, summaries and other information for articles. Sectors such as human factors, the working environment, labour protection, occupational safety, occupational health, risks to the working environment, occupational diseases, health promotion at work, etc. are included.

E-book platforms available in the LU Library featuring materials in the study field Internal Security and Civil Protection

VLeBOOKS – an e-book platform featuring e-books purchased by 29 LU libraries featuring materials for LU's PhD program, Human factor, Safety at work and Occupational Health, from the world's leading publishing houses (like Routledge, CRC Press. Cambridge Scholars Publishing, etc.).

ProQuest Ebook Central Academic Complete Collection – a collection subscribed to the ProQuest eBook Central e-book platform with 3,085 subscribed publications (issued in 2015-2020), as well as separately purchased 9 e-books (issued in 2015-2020) corresponding to the LU doctoral programme “Human factor, Occupational Safety and Health” from the world's leading publishing houses (e.g. Routledge, John Wiley & sons, Stanford University Press, Cambridge University Press, Taylor & Francis Group, BRILL, Yale University Press, MIT Press, etc.).

Free access resources comprising materials for the LU study field 'Internal security and civil defence

ArXiv.org, BMC, BMJ Open, Bookyards, Bookboon, Cogent OA, Cogprints, CORE, DialNet, De Gruyter Open , Directory of Open Access Books (DOAB), Directory of Open Access Journals (DOAJ), EBSCO Open Dissertations, Eurostat Data, F1000 Research, Free Medical Journlas, FreeBooks4Doctors, GitHub, Google Scholar, HighWire Press, Hindawi, IEEE Open, IGI Global Open Access Journals, IMF eLibrary, IPI eBooks, Journals for Free , Karger Open Access, Likumi.lv, Lippincott Open Access Journals, LR Centrālās Statistikas Pārvaldes datubāze, MedKnow, OAPEN, Open Access Research Database (OARD), Periodika.lv , Science Books Online, Springer Open, The Cleveland Clinic Disease Management Project, TRIP, Veselības statistikas datubāze, Wiley Open Science, WordlWideScience.org, Zenodo.

Conclusion: Printed information resources in the LU Library collection in terms of content and number thereof, as well as electronic resources available in the databases subscribed to the LU and free access online, are generally consistent with ensuring the study process of the study direction “Internal Security and Civil Defence” and developing scientific research. Each year, stocks are replenished with the most up-to-date information resources in line with the informational needs of academic staff and students.

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.

Nowadays, information and communication technology (hereinafter – ICT) solutions provides excellent opportunities for the development of the educational process. It allows implementing new projects and introduce new systems so that the study process would be as successful as possible. The use of ICT in the educational process is one of the ways to increase learning motivation.

The Department of Information Technology of the LU provides the LU students and employees with an application package *Microsoft* (henceforth – MS) *Office 365*, a cloud technological solution. *Office 365* provides students and employees with the best tools for modern study work, for example, *Outlook*, *Forms*, *OneNote*, *Sway*, and a package of *Office* programmes containing *Word*, *Excel*, and

PowerPoint.

In addition to *MS Office 365*, students and employees of the UL are provided with software such as SPSS, *Question Pro*, *Autodesk*, *MathWorks MatLAB*, *Esri ArcGis,* etc. Access from outside the UL premises for the use of this software requires a VPN connection with the LLin order for the software to access network license services.

One of the *Office 365* online applications, *MS Teams*, is used to provide remote learning and distance learning programmes. This online application ensures both online lectures and recording of lectures, as well as online communication with students.

In addition to *MS Teams* programme for the online study process, the LU offers its students and employees a web video conferencing system *BigBlueButton* (hereinafter – BBB system), which is an open-source web online videoconferencing system. BBB ensures the organisation of the University's online events for the LU personnel, including students and event attendees. It can also be used as an integrated solution for e-study system (for only registered users in the course) and outside an e-study system, in which case one must connect to the LU online conference server in a web browser https://bbb.lu.lv.

Two e-study environments are available in the LU – estudijas.lu.lv and edu.lu.lv. The e-study environment estudijas.lu.lv is to ensure the study process and management, while the e-education platform edu.lu.lv is developed for e-education projects, events, and courses as well as distance learning programmes.

The open-source e-study environment *Moodle*, a modular object-oriented dynamic learning environment, is used for both e-study environments. Now, it is not only methodically and pedagogically but also economically most effective e-study solution. Courses have been developed in the *Moodle* e-study environment, where the necessary study materials and activities for students are available. There the teaching staff can assess students and register study attendance.

For data storage in the study process, the LU provides *Office 365* cloud service *OneDrive* 1TB, which is available for students and employees. *OneDrive* is *Microsoft's* cloud service that connects with all user files. It allows to save and protect files, share them with other users and access them from any location on all devices.

For data transfer, the LU offers its students and employees a large-scale file transfer system – https://store.lu.lv/. This system allows sending files that cannot be sent over an e-mail due to the size, however it is not intended for a long-term file storage.

Virtually all of the abovementioned ICT opportunities are used in the study direction for the provision of face-to-face and remote study process.

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.

Normative acts that regulate the process of teaching staff recruitment and/or employment:

- *Regulatory Enactments on Academic and Administrative Positions at the University of Latvia*(available only in Latvian)

- *Regulations of the UL Professors Council* ((Latvijas Universitātes profesoru padomes nolikums)available in section *Other annexes*, available only in Latvian)
- *Procedures for the Recruitment of Unelected Teaching and Research Staff at the University of Latvia* (available in section *Other annexes*)

There are three teaching staff groups at the LU: academic staff that holds their academic positions based on elections; acting academic staff and visiting academics; as well as hourly-paid staff.

In the case of elected academic positions, as well as the acting academic staff, *the Regulatory Enactments on Academic and Administrative Positions at the University of Latvia* regulate the recruitment and selection. According to the regulations, the following academic positions exist at the LU: professor, associate professor, assistant professor, senior researcher, lecturer, researcher, assistant, research assistant.

Decisions on the need for certain positions are made by the faculties. Competitions for elected academic positions are announced openly. Public calls for applications for the elected academic positions, including the function and terms of reference for the respective position, are published on the UL website https://www.lu.lv/par-mums/vakances/(available only in Latvian), internationally advertised vacancies: https://www.lu.lv/en/about-us/vacancies/, and also in National Scientific Activity Information System and State Employment Agency of the Republic of Latvia vacancy portal. Any person who conforms to the requirements specified by *the Law on Higher Education Institutions* may apply for the position.

The applicants for academic positions must deliver an open lecture, which is evaluated by two reviewers, who issue their opinion on the quality of the lecture. The election procedure is carried out either by the decision-making body of the relevant unit (in the case of assistants, research assistants, researchers, senior researchers, lecturers, and assistant professors – by the respective Faculty Council), however in the case of associate professors and professors – by the relevant Professors Council. Elections must take place within two months from the date of the call for applications. The personalia – docents, lecturers, assistants, senior researchers, researchers, and research assistants – are voted on by secret ballot. Professors and associate professors are voted openly (in accordance with the 05.11.2020 amendments of 2nd Paragraph of Section 33 (in force from 01.01.2021) of *the Law on Higher Education Institutions*). An applicant who has received more than half of the votes of the members present with the right to vote shall be considered elected. According to *the Law on Higher Education Institutions*, lecturers are elected for a term of 6 years. At the end of the term, the faculty decides on the need to announce a new competition. There are no restrictions on the term of office.

In accordance with the LU regulations, minimum requirements are set for all applicants for academic positions, i.e., knowledge of the state language in accordance with regulatory enactments, knowledge of foreign languages to the extent necessary for the performance of academic duties and continuous improvement of their academic and scientific qualifications. Other requirements differ across academic positions, for instance, to qualify for the position of docent, the candidate must have a doctoral degree, while the requirements for associate professors are more demanding, i.e., they must have considerable academic and pedagogical experience, an extensive list of publications and experience in scientific research projects.

If the Senate chooses to decline the proposal from the department and not to announce vacancies, a guest lecturer may be recruited; however, if a member of hourly-paid staff is more relevant to the development plans and needs of the faculty, the prospective employee concludes a contract for a specified period (usually for the duration of the study course). In such cases, the decisions relating to the candidates' recruitment and selection are taken by the structural units, i.e., faculties. In these cases, only the control to ensure that the remuneration set by the entity complies with

internal and external rules and regulations is centralised.

The Rector of the LU concludes an employment agreement for the entire term of office with the person elected.

The process of selecting teachers of the study field during the accreditation period was organised in accordance with the criteria referred to above, paying particular attention to the academic and professional experience of teachers in the field of labour protection. In particular, professional and scientific experience and recognition in governmental and non-governmental organisations were assessed.

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.

The LU Strategy 2021-2027 emphasises that the goal of the development and excellence-oriented personnel policy is to ensure the development, growth and renewal of academic and general personnel, to create a performance-based personnel management system, which will also include competitive and motivating personnel remuneration, to improve academic staff career development opportunities, to create a system for attracting local and foreign academic staff, as well as new talents, and to promote international mobility.

The professional development of the LU academic staff is organised in accordance with the Cabinet Regulations No 569 of 11.09.2018 *the Regulations on the Necessary Academic and Professional Qualifications of Pedagogues and Professional Competence Development Procedures*, where Paragraph 16 states: “Educators of higher education and colleges shall, by the end of the term of their election, undertake a vocational development programme on innovation in the higher education system, or the higher education didactics, or the management of educational work at 160 academic hours. (including at least 60 contact hours). Professional development may include international mobility and participation in conferences and seminars relevant to the purpose of the professional development, as evidenced by submitted documents", as well as the Cabinet Regulation No 129 of 25.02.2021 *the Procedures for Evaluating the Scientific and Teaching Qualifications or Results of Artistic Creation Work of an Applicant for the Position of Professor or Associate Professor and of a Professor or Associate Professor Holding the Position*.

The qualification requirements and tasks of the academic staff of the LU are included in *the Regulations on Academic and Administrative Positions at the University of Latvia* (the LU Senate Decision No 2-3/11 of 31.01.2022), while the quality/performance of the academic staff of the LU is evaluated in accordance with *the University of Latvia Academic Remuneration Regulations* (the Senate Decision No 14 of 30.05.2016) and *the University of Latvia Scientific Personnel Remuneration Regulations* (the LU Senate Decision No 71 of 27.01.2020).

The Academic Department of the LU, the Adult Pedagogical Education Centre (hereinafter – APEC) of the Faculty of Education Sciences and Psychology of the LU (hereinafter – the LU FESP) provide

informative, consultative, and methodological support to the LU academic staff in the field of the higher education didactics. The APEC of the LU FESP offers a vocational development programme "Didactics of Higher Education: modern theories and practices", as well as continuing education programmes "Pedagogical aspects of the development of study programmes in higher education", "The professional development of the competence of the student trustee", etc. However, within the framework of the *Study Development and Management Improvement Programs* (SAPPP) projects, for example, assoc. prof. Ženija Roja managed and co-ordinated the project "Development of internationally competitive study programmes promoting the development of the national economy of Latvia at the University of Latvia" (project No. 8.2.1.0/18/A/015), the doctoral study programme "Human factor, Occupational Safety and Health", while Prof. H. Kaļķis was an expert, developer of the study programme.

On the completion of the continuing education programme "Methodology for the formulation and evaluation of the learning outcomes", programme directors and academic staff purposefully update their study courses and the mapping of the learning outcomes of the respective study programmes and study courses. Results, problems and challenges were regularly discussed at meetings of the study field Council, which also included representatives from sectors (e.g. E. Januma, U. Piekus, K. Kursis, etc.), and students' representatives (A. Jaunklavins, J. Saknitis).

The LU academic staff can improve their English language skills by completing the continuing training programme "Professional English Language Enhancement Course for Academic Staff" at the Centre for Applied Linguistics of the LU Faculty of Humanities. In 2021, for example, a successful English language exam was passed by study field lecturers assist. prof. J. Login, assoc.prof. A. Prikšane, 2022 assoc. prof. Ž. Roja, in 2023 planned to take the exam and obtain an appropriate certificate of language proficiency at assist. prof. I. Reinholds.

Young academics and doctoral students from various LU doctoral programmes, each spring semester, are actively using the possibility to attend the continuing education programme "Introduction to teaching in higher education".

To promote collegial learning and identify good practices in teaching, the continuing education programme "Promoting the colleague experience exchange of academic staff" where academic staff perform peer observation (hospitation), thereby directly promoting the exchange of teaching experience among academic staff and contributing to the LU organisational development has been developed. As of 2018, regular peer observation of academics is commenced in the field of study, e.g. in acad. year 2021/2022. assoc. prof. Ž. Roja's, assist. prof. Reinhold's lecture and seminar were observed by prof. H. Kaļķis, and assoc. prof. Z. Roja observed lecturers K. Andžs, M. Abuls, professor A. Batrags, prof. A. Podgornovs, professor H. Kaļķis, assist. prof. I.Reinholds was peer observed by assist. prof. J. Logins, etc.). Peer observation rates were somewhat hampered by the remote study process during the 2020/2021 school year, however peer observation also took place on a plan in remote mode using MS Teams and ZOOM platforms. Peer observation is planned to continue on an ongoing basis. It should be noted that in the 2019/20 acad. year the Council of the Study Field "Internal Security and Civil Defence" was established, which developed a strategy for the development of the Study Field for 2020-2025 (attached in Annex 3 to the self-assessment report). Within its framework, it is stipulated that each academic year a meeting with the academics involved in the study programme is organised in order to ensure the interconnection of study courses, which is also regularly implemented.

The LU academic staff collaborating with freshman students are a special target group for continuing training and as such are offered a continuing education programme "Professional development advising first-year students". This opportunity has already been taken up by a number of graduates in recent academic years, especially young doctors and attached teaching staff.

Academic staff in continuing education programmes especially welcome the opportunity for study process modelling, testing new teaching methods, exchange experience.

With the funding of the EU in the period from 2018 to 2023, several study programmes for lecturers are being implemented:

1. Development of online learning and digitalisation of learning content (target group – academic staff).
2. Innovations to improve the quality of the learning process (target group – academic staff).
3. Academic integrity (target group – heads of study fields and study programme directors).

The seminars are regularly attended by academics involved in short-cycle higher vocational education, masters, bachelors and doctoral programmes, which have led to a significant increase in the quality of studies, as teachers can apply the acquired knowledge in working with students, in particular on innovations in the study process – teachers use a variety of interactive tools such as kahoot, menti.com, etc., and new methods such as integration of playing in case games, etc., in educating students.

All programmes have been developed by analysing the professional development needs of academic staff in the context of higher education trends. As a part of the implementation of the academic staff training system, the LU Academic Department conducted an electronic survey of the LU academic staff, which allowed to pool information on their ongoing professional development needs, as well as encouraged several faculty members to express their readiness to participate in the development and offering of continuing education content to their peers in line with professional and didactic development. needs.

After the implementation of each programme, a survey and an evaluation of the outcomes is conducted among the attendees of the programme. The LU faculties organise thematic seminars on topics of teaching training relevant to the academic staff of the respective faculty.

The professional development activities of the academic staff of the LU were included in the plan of measures for the development of the academic staff of the University of Latvia 2018–2023.

In order to determine the professional development needs of the academic staff of the LU in the field of the pedagogical activity, the LU Department of Studies (now Academic Department) at the end of 2017 and the SDMIP of the LU in the 1st quarter of 2020 and in the spring of 2021 conducted a survey of academic staff, including heads of study fields and study programme directors, the results of which were taken into account when developing a training plan for the development of academic staff competence, including the project of the Operational Programme "Growth and Employment" 8.2.2. within the framework of the 1st round "Renewal and Competence Development of Academic Staff at the University of Latvia", 2nd round – "Motivated, Modern and Competitive Academic Staff of the Study Field "Education, Pedagogy and Sport" at the University of Latvia" and 3rd round "Strengthening the Capacity of the Doctoral Studies of the University of Latvia within the Framework of the New Doctoral Studies Model" (hereinafter – project “Growth and Employment”) in order to effectively plan and ensure the enhancement of the competence of academic staff.

The following outcomes are to be achieved by the December 2023:

- improved system of attracting and selecting the academic staff of the LU;
- reduced average age of teaching staff and the age structure approaches the EU average[1], with at least 1/3 of academic staff aged between 35 and 49; (Eurydice:“Modernisation of Higher Education in Europe: Academic Staff – 2017);
- improved scientific performance;
- developed and implemented a model for the renewal and succession system of academic and

scientific staff;
- developed and implemented a professional development system for the academic staff of the LU.

When planning the growth and development of the academic staff, the LU pays equal attention to the identification of the most capable students in the study programmes of the LU and to motivating them to get involved in academic work already during their studies (related to both teaching and research). In this context, the LU has developed requirements and selection criteria for attracting new doctoral students in the framework of the project “Growth and Employment” (objective of specific support "To strengthen the academic staff of higher education institutions in the fields of strategic specialisation"):

1. A doctoral student studying in the last year of an accredited doctoral study programme, as well as a doctoral student, a Latvian citizen, studying in an accredited doctoral study programme outside Latvia, and a scientific degree candidate.
2. Successfully acquired number of credit points required in the first two/three years of study/ or, for a doctoral degree candidate, successfully completed studies in DSP.
3. Participation in an international scientific conference with a presentation/report.
4. Publication of at least one scientific article in an international publication.
5. English language skills at least at B2 level.
6. Successful passing of the doctoral examination in English.
7. Positive feedback from the supervisor of the doctoral thesis about the doctoral student as a potential lecturer.
8. Leadership traits and interest in LU research and course implementation.

Targeting the growth and development of foreign academic staff, the LU has developed requirements and selection criteria for attracting foreign academic staff:

1. Persons who have been employed in an academic position in one of the accredited foreign universities during the previous five years.
2. A doctoral degree in the relevant field of science or a doctoral degree equivalent to it.
3. Relevant scientific and academic work experience.
4. Ability to work in the e-study environment.
5. Participation in at least three international conferences with a presentation/report.
6. Published monographs and scientific articles, including in indexed international editions with calculated citations (at least three).
7. Participation in or participation in research projects.
8. Excellent knowledge of foreign languages, especially English, skills to use them in studies and methodological work.

For successful and unified implementation of study programmes at the LU, a special study programme for heads of study fields and study programme directors was developed, its implementation took place on 12.10.2021-28.10.2021, the training was run by an international accreditation expert from Poland and representatives of the Quality Agency for Higher Education of Latvia.

The process of selecting the teaching staff during the accreditation period is a continuous and continuous process. This is essential to ensure that teaching staff are able to offer students high quality education that meets current requirements and high standards, especially in the areas of labour protection. The process of selecting academics involves a thorough assessment and review to ensure that academics meet the requirements and are competent in their fields. This includes assessing the experience and qualifications of teaching staff, as well as evaluating pedagogical, scientific and practical achievements. This process is necessary to ensure the ability of the study

direction to provide students with high quality education that will help them succeed in their careers. Thus, the process of selecting teaching staff in the field of study is essential to ensure that LU is able to maintain its good reputation and deliver high quality education, which is important not only for students but also for the country as a whole.

During elaboration of the Study Field self-assessment report, the information on the opportunities for promotion and qualification improvement used by the participating lecturers during the reporting period was collected, the results of which are summarised in Table 2.3.6.1.

Table *2.3.6.1.*

Promoting the growth of teaching staff

(Assessment of didactic skills improvement and qualification improvement)

Nr.	***Criteria/academic year***	***2016 / 2017***	***2017 / 2018***	***2018 / 2019***	***2019 / 2020***	***2020 / 2021***	***2021 / 2022***
1.	**Development of language skills, e.g. acquisition of foreign languages in courses, training**		1			2	2
2.	**University didactics (training), e.g. vocational training courses, training courses, lectures in teaching, university teaching, working with students**	2	1	2	1	1	1
3.	**Attendance at various summer schools**			1		1	
4.	T**eaching of lectures and study courses under the Erasmus and Erasmus + programmes**	3	4	3	3	1	2
5.	**Participation in Erasmus or other staff development programmes**	2	2	3	3	1	2
6.	**Attendance at international scientific conferences (listening)**	37	32	36,	29	18	26
7.	**Attendance at national scientific conferences (listening)**	26	22	27	25	12	18
8.	**Participation in various seminars**	56	53	44	36	14	17
9.	**Participation in professional organisations**	3	4	3	3	4	5
10.	**Participation in different working groups (improvement of normative acts, etc.)**	2	2	3	5	5	5
11.	**Participation in the organisation and provision of further training**	5	6	3	6	3	3
12.	**Participation in various international scientific redactions**	6	5	6	4	3	4
13.	**Participation in various national scientific redactions**	3	4	4	5	4	4
14.	**Participation at various international level**	5	4	5	5	5	5
15.	**Organisations in committees**	3	2	3	3	3	3
16.	**Participation in various national organisation committees**	2	2	2	3	2	2

Details are reflected in the academics' CVs

[1]Eurydice ziņojums "Augstākās izglītības modernizācija Eiropā: akadēmiskais personāls 2017" (Modernisation of Higher Education in Europe: Academic Staff – 2017

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 qualifications of the academic staff of the University of Latvia involved in the field of study fully correspond to the implementation of study programmes relevant to the field of study. The number and list of academic staff involved in the implementation of the programmes of the field of study are attached as Annex 6. In total, 52 academic staff are involved in the field of study.

The implementation of the Master's study programme "Work Environment Protection and Expertise" is carried out by the academic staff of the Faculty of Chemistry and other faculties: 3 professors, 2 associate professors, 4 assistant professors, 1 lecturer, as well as hourly lecturers - specialists from state and private organisations. In total, 9 lecturers with PhD degrees and one lecturer with a Master's degree. The professional bachelor's study programme "Occupational Health and Safety at Work" and the short-cycle higher vocational education study programme "Labour Protection" employ 37 lecturers, of whom 23 have a doctoral degree, 13 have a master's degree and 1 lecturer has a level 2 professional higher education qualification.

The doctoral programme "Human Factors, Occupational Safety and Health" involves 17 academic staff members. Of the academic staff involved in the programme, 7 are professors, 4 associate professors, 5 assistant professors and 1 researcher. All the academic staff involved in the implementation of the DSP have a PhD in: Biology (1), Design (1), Economics (1), Philology (1), Philosophy (1), Geography (1), Geology (1), Engineering (3), Medicine (3), Pedagogy (1) and Management (3). Nine academic staff members have the status of LSC expert, 3 of them (prof. H. Kalķis, assoc. prof. Ž. Roja, assoc. prof. M. Reinvee) with the right of expert in the field of Social sciences - other social sciences, including interdisciplinary social sciences and military sciences.

Five professors and 3 associate professors, who have been elected to academic positions at the University of Latvia (LU), participate in the implementation of the compulsory and restricted elective parts of the programme. The knowledge of English language of the faculty members involved in the programme implementation allows teaching study courses also in English. The knowledge of the state language of the academic staff employed in the study programme complies with the Regulations on the Scope of Knowledge of the State Language and the Procedure for Testing the Proficiency in the State Language for Professional and Official Duties, and allows for lecturing of study courses in the state language.

This academic staff structure ensures a high quality of academic education. The LU Study Field "Internal Security and Civil Defence" is characterised by a stable staff - many lecturers, especially professors, are recognised specialists in the field with many years of experience in their profession (for example, Ž. Roja, A. Prikšāne, H. Kaļķis, J. Logins. B. Sloka, A. Podgornovs, J. Škilters, etc.). During the reporting period, changes in the staff composition have been quite minimal, while it

should be noted that new study programmes have been added to the field of study during the reporting period - a full cycle has been established, ranging from short cycle study programmes to doctoral level studies. In terms of academic composition, the elected staff - professors, associate professors, assistant professors and lecturers, who are elected for a maximum term of 6 years in accordance with the procedure laid down in the Law on Higher Education Institutions - is numerically predominant. It is commendable that the field of study has also undergone staff renewal. Both new and existing lecturers, who have relatively recently graduated from the doctoral programme (e.g. H. Kalķis, I. Reinholds, I. Daugule), have become lecturers.

On average, each elected lecturer teaches about 3-5 courses and supervises coursework, bachelor theses, master theses, doctoral theses and internships. The involvement of teaching staff in the teaching of study courses is organised and ensured by the study programme directors. This means that the distribution of teaching loads is the responsibility of the programme directors. The vast majority of teaching staff are employed full-time.

The knowledge of the state language of the academic staff involved in the implementation of the study programmes complies with the laws and regulations of the Republic of Latvia. The majority of academic staff are proficient in English at a level sufficient to conduct studies in English.

In addition, for the implementation of study programmes (especially vocational programmes), industry experts and employers' representatives are involved, with whom a work contract is concluded for a semester or academic year as a practitioner for the implementation of a specific study course. Visiting lecturers/guest professors from Latvia and abroad are also involved in the study process.

The mobility of incoming faculty is ensured by the wide and varied external relations of the Field of Study. With the increasing visibility of the study programmes of the study field at the local and international level, as well as the continuous initiation of new bilateral cooperation agreements within the framework of the ERASMUS+ programme and other activities, inbound and outbound mobility in the study field is also implemented annually. Summary of statistics on inbound and outbound mobility of teaching staff during the reporting period (2013/2014 - 2021/2022) (see Annex 13).

The Study Field hosts guest lecturers and provides various exchange programmes for faculty members. It is not possible to distinguish between incoming and outgoing lecturers by study programme, as incoming lecturers lecture in different groups, in different programmes, and outgoing lecturers teach different courses in several study programmes. In addition, most mobility programmes require at least 8 hours of lecturing over 5 days, so in order to ensure that the mobility programme conditions are met, guest lectures are integrated into the curricula of several study programmes, which enables the visiting lecturers to have several contacts with the faculty members of the field of study and to ensure the maximum amount of international guest lectures in all study programmes offered. The most widely used programme is Erasmus+, under which lecturers receive EC funding to cover mobility costs.

It should be noted that a number of teaching staff have repeatedly taken advantage of the opportunities offered by Erasmus+ and other mobility programmes, e.g. H. Kalķis, Ž. Roja, A. Araja, etc. On the other hand, there are some teaching staff members, who have not yet participated in an international mobility, which is mainly due to various personal reasons. Some of the faculty members are employed elsewhere besides the LU, and they have minor children, which limits the mobility possibilities. Mobility also requires adjusting the timetable of classes, which is not always possible due to the workload of the teaching staff. The limited number of places allocated to the faculty also hinders greater involvement in international mobility.

Each year, various projects are prepared for faculty members to go on exchange visits to partner institutions, but there is often an unequal distribution of funding in the project conditions, with outgoing mobility receiving less funding.

In addition to faculty mobility, staff mobility is also implemented in the field of study, which has been used, for example, by K.Parasiga-Parasiņa, thus strengthening opportunities for international cooperation. Various foreign colleagues also visit the Faculty as part of staff mobility (see Annex 13).

It should be noted that mobility programmes also add value to the implementation of the study process and the quality of studies - during these activities, different ideas are exchanged and new insights and ideas are applied in the study process. Mobility programmes also create new opportunities for future international cooperation through conferences, scientific seminars and joint projects.

The International Relations Coordinator, Marketing and Communication Specialist of the Faculty is responsible for the successful running of international exchange programmes (Erasmus, Erasmus +, etc.) and mobility processes, successful functioning of the Faculty website, all social accounts, coverage of all public events, conferences, seminars, discussions, press releases, communication with the media, hosting guest speakers, successful participation of the Faculty in the exhibition "Skola" (School) and other related activities.

To summarise, the study programme "Internal Security and Civil Defence" brings together a number of teaching staff with different academic degrees and professional backgrounds. They are mainly professors, associate professors, assistant professors and lecturers, who are involved in the implementation of the various courses of study. The teaching workload in the field of study is balanced, but it is clear that teaching and research are part of the professional activity of the lecturers. This reflects the high level of involvement of the teaching staff in the study process, as well as their multifaceted role in the education of students and in the research activities of the teaching staff. In addition to lecturing, teaching staff are actively involved in supervising students' theses, including bachelor's, master's and doctoral dissertations. This involvement in theses contributes to the scientific growth and skills development of students. Several members of the teaching staff have been awarded expert status in various scientific fields, which is testimony to their high scientific competence. They participate in scientific research, publish articles and other scientific works that reflect their contribution to science and the scientific community. These factors together demonstrate the balance of the teaching staff's workload in study and scientific work, which ensures high quality of studies and contributes to the scientific development in the field of study "Internal Security and Civil Defence".

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.).

The students of the LU have access to academic support, career development support and psychological support.

The aim of academic support is to provide students with information and advice on study issues for

the entire period of studies. Academic support includes the implementation of the first year of studies support programme, advice on the study process (content of study programme, choice of study courses, legal documents regulating the LU study process), information on teaching staff consultations, consultations and workshops on learning study skills (notetaking, reading scientific literature, active listening, examination anxiety, time management, using library and Internet resources).

Academic support in academic matters is managed centrally by the Department of Study Service and the responsible persons with the respective faculties: study programme director, tutor, mentor, programme assistant, study course lecturers, and the Students' Council of the LU and faculty self-governments. The Library of the LU provides consultations on the use of the library and Internet resources. Table 2.3.8.1 displays examples of key tasks to be performed by student support units/ staff.

Table 2.3.8.1.

Examples of key tasks to be performed by student support units/staff

Structural unit/staff	Key responsibilities
Tutor	Informs students of the developments in the study process, provides individual support to those students who face difficulties entering academic environment of the UL and initiates adaptation and team-building measures.
Programme assistant, study advisor	Provides study advice, assists in day-to-day issues related to the study process, files study records, advises on the LUIS.
Mentor	A senior student who helps first-year students adapt to the study environment and share their experience.
Student Council (SC)	The purpose of the SC is to represent the LU students and to defend their rights and interests. The SC represents the students' interests in academic issues by electing student representatives to the decision-making bodies of the SC, considering issues related to the study process and its improvement.
Study programme director	Organises and manages the development of a study programme in accordance with the requirements of the specific scientific or economic sector, cooperates with employers and internship sites in matters of study content, evaluates and approves individual study modules and individual study plans, etc.
Department of Study Service	Organises the admissions process, advises the staff and students on mobility programmes, study, social and cultural issues, advises and organises career coaching and consultancy. Organises adaptation measures for students provides training for tutors, mentors, organises cooperation with employers, etc.

The aim of career development support is to provide students with comprehensive support and develop their lifelong skills to identify their interests, abilities, skills, experience, thus enabling them to make informed decisions regarding education and/or occupation, and ensuring that they can guide their future career, study, and life paths. Career development support is provided by the Career Centre of the LU Department of Study Service in collaboration with the respective faculties.

The Career Centre provides the following services to students:

- Individual consultations for future studies and careers, setting up an individual career plan, providing support for the transition between different levels of education and from education to the labour market;
- Workshops for career planning skills (“Career planning and development skills”, “My first job interview”, “Stress management”, etc.);
- Internet resource – Career Centre home page (information available in both Latvian and English) https://www.karjera.lu.lv/ (available only in Latvian) and https://www.karjera.lu.lv/en/ provides up-to-date information on career planning issues, occupational information and the labour market;
- the “E-career” electronic resource https://e-karjera.lu.lv/(available only in Latvian), which enables students to quickly find their internship opportunities and jobs by adding their CVs to a database and employers to recruit employees by listing information on job vacancies in the database.

Psychological support is provided by the Department of Study Service. A psychologist-counsellor provides psychological support to students in solving personal and study issues arising from studies (relationship issues, conflict resolution, emotional difficulties). A psychologist provides individual counselling and telephone counselling.

Dedicated events aimed at international students are organised in cooperation with the Erasmus student network (ESN), thus introducing international students to Latvian culture and traditions and promoting interactions with domestic students.

The assessment of infrastructure accessibility for persons with disabilities has been conducted in cooperation with ‘Apeirons’. The results obtained are considered both in the construction of the new infrastructure and in the provision of study programmes.

In order to increase the level of students' motivation towards excellent study results, as well as to reduce the drop-out rate, in the academic year 2016/2017 the University centralized student tutors, whose task was to provide both practical and moral support to first-year students in order to better adapt to the University both academically and socially. The tasks of the tutors also included monitoring students' academic performance and, if necessary, recommending appropriate support measures to help students develop their study skills. In the 2018/19 academic year, it was decided to discontinue the tutor programme and currently only senior students (mentors) are available to support first-year students.

To support students in the Bachelor's and Master's programmes, since 2015 the Study Field has regularly organised a seminar at the beginning of the academic year and in the last semester before defences, dedicated to tips for successful final thesis defences. During the seminar, advice is given to prospective graduates on how to better prepare for the final thesis defence and what mistakes to avoid when defending their thesis.

All students can apply for various grants and scholarships offered by the LU Foundation, such as scholarships from philanthropists (Freshmen Scholarships "Ceļamaize", "M.M.V. Petkevičius Memorial Scholarship", Kristaps Morbergs Scholarship, Young Researchers Scholarship in the Humanities, Young Researchers Scholarship in the Social Sciences, Kurt Hagen Scholarship to study

in Germany, Regional Scholarships, Timermann Scholarship for PhD students and PhD candidates in the Social Sciences, etc.). Students have the opportunity to receive state scholarships for basic, higher level, professional programme students, doctoral candidates. Scholarships offered by other countries are also available: Baltic-American Freedom Foundation (BAFF) Scholarship; Youth Excellence Programme Scholarship for Master's Studies in China (YES CHINA); Global Korea Scholarship (GKS); Ukrainian Government Scholarship; Slovak Government Scholarship; German Academic Exchange Service Scholarship; Catholic Academic; Foreign Service (KAAD) Scholarship in Germany; DUO-Korea Scholarship Programme; Kazakhstan Government Scholarships. In the new PhD programme "Human Factors, Occupational Safety and Health", 5 out of 7 PhD students who started their studies in the autumn semester 2022 were awarded PhD support grants from the Faculty of Science, which has contributed to the quality and development of their scientific and research activities. At the same time, it indicates the high quality of the implemented doctoral study programme.

The study field "Internal Security and Civil Defence" focuses on providing adequate human resources to support students in the widest range of ways and forms. Qualified and appropriately trained academic and administrative staff, who are provided with the opportunity to further acquire the necessary knowledge of the latest developments in the field, are involved at every stage of the study process and in the implementation of the field of study.

The Faculty offers a wide range of study support services for both FT regular and PT regular students. It is also foreseen that all international students (to be applied to the further implementation of the PhD programme) will be provided with all the same support facilities as domestic students. Psychological counselling, dormitories in which students live and accessible facilities for people with disabilities are provided. Mentors (academic staff) are assigned to groups of foreign students in the faculties of the University to help students solve problems and integrate into the University.

All students are provided with a minimum of two hours of weekly consultation with each elected member of teaching staff to enable any unclear substantive or procedural issues to be discussed face-to-face with the lecturer of the course. Students may also consult the study centre, re-register for courses, obtain clarification on coursework and register for it, apply for recognition, etc. The faculty provides photocopying services for students, while the library offers free scanning of books and other necessary materials. Lecturers provide lecture handouts in the form of books and also prepare handouts for students and copy them in the quantities required. For independent work and research, students can use the library reading room, where they can read scientific journals, articles, E-books, etc., the computer rooms, and other facilities set up for students' use.

Within each academic year, Programme Directors of the Study Field shall implement the practice of organising introductory lectures on all relevant issues. In particular, introductory lectures are provided on the short-cycle higher vocational education study programme "Labour Protection" and the Bachelor's study programme, on studies in the Master's and Doctoral programmes, on internships and other issues related to the study process. Once an academic year (before the final thesis defence), a seminar on "How to successfully defend your thesis" is organised, where study programme directors tell future graduates how to better prepare for their thesis defence and what mistakes to avoid when defending their thesis.

Administrative and technical staff support is to be provided in two blocks. Firstly, the staff of the Academic Department, the Student Services Department, the Legal Department and the Information Technologies Department provide significant support for the implementation of each study programme, as the study process is unthinkable without legal, technological and service support. Thus, centrally organised units provide important support throughout the study process, in

the context of study programme content, implementation, quality control, and improvement. It should be emphasised that the involvement of the staff of the above-mentioned independent units of the LU is applicable to both individualised (e.g. solving a specific problem for a single student) and large-scale issues. Another important element in terms of administrative and technical support is the staff of the Faculty of Chemistry, who are directly and directly involved in the day-to-day practical implementation of all study courses, study programmes and, consequently, the entire field of study. This involvement is manifested in the support and cooperation with the teaching staff, students, the management of the faculty and the field of study and the centralised apparatus of the University. The Study Field Methodologist provides all kinds of support to the students of the study field in relation to registration, application for studies, study process, registration for elective courses, grades, rotation, examination reports, etc., as well as methodological and practical support to the departmental staff and students in all matters related to studies, examinations, grades, faculty consultations. The computer specialists of the LU Nature House are always responsive and responsible for the proper condition and functioning of all computer hardware, software and office equipment for the staff of the Study Field.

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 aim of the University of Latvia is to become an internationally recognised European and world-class science university. According to the Strategic Plan of the University, this includes the provision of science-based studies, including the promotion of scientific activities of students and staff. The University is a national leader in science.

Scientific research of the study field is in full compliance with the objectives set out in the Development Strategy of the LU, the Research Programme of the LU and the Strategy of the Faculty of Chemistry of the LU. According to the Development Strategy of the University, the following objectives are set in the field of research: improvement of scientific excellence, internationalisation of research, expansion of the knowledge base and technology transfer.

The following research areas have been identified for the field of study and the corresponding study programmes: Labour Protection, Ergonomics, Human Factors, Work Environment Risk Assessment, Employee Welfare, Quality and Efficiency of Work Processes, Civil Defence.

These objectives are also pursued at the level of the study field "Internal Security and Civil Defence". Students, lecturers and researchers of the Faculty have unique access to scientific publications and statistical databases (including Scopus, Web of Science, Orbis, Eurostat microdata, MarketLine, Passport, etc.), as well as strong disciplinary and interdisciplinary, national and international cooperation networks with various partners have been established and are maintained (incl, e.g. national, local, associations, companies, universities, etc.), regular acquisition of up-to-date e-resources, including e-books, and access to the latest scientific knowledge.

Research focuses on current challenges in labour protection, ergonomics, wellbeing at work and

health promotion in Latvia, the Baltic States, and Europe as the whole, as well as in the USA. Research plays a special role, both in addressing important occupational health and safety issues and in providing research-based and market-relevant studies.

In addition, the study field organises an annual section of the LU scientific conference "Human Factors, Ergonomics and Working Environment, Industrial Engineering", which is attended by study field faculty, students, employers and anyone interested in work protection and other related issues.

Research is and will continue to play a special role in the training of young highly qualified researchers for the new PhD programme in Human Factors, Occupational Safety and Health. The aim of the study programme is in line with the goals and objectives defined in the strategic and planning documents of Latvia. Latvia's Sustainable Development Strategy 2030 aims at a paradigm shift in education to ensure development in research and competitive higher education (including the Latvian National Development Plan). The mission to prepare teachers and researchers for higher education institutions is one of the most important activities of the LU in the new strategy. The competences acquired in the study process demonstrate the ability to independently, critically analyse, synthesise and evaluate, to solve significant research and innovation tasks, as well as the ability to independently propose a research idea, independently plan, organise, structure and conduct research in the field of occupational safety and ergonomics, as well as in the interface with other fields of science. Doctoral graduates will be promoted in their current workplaces, become assistant professors, associate professors and professors in the further development of occupational health, ergonomics and human factors at the University and other higher education institutions.

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.

In line with the Strategic Plan of the LU, the study direction provides science-based studies, using modern and competitive educational technologies, as well as promoting the scientific activity of students and staff. An important advantage of the Study Field is the provision of access to scientific publication databases (including Scopus, Web of Science, EBSCO) and statistical databases (including Orbis, MarketLine, Passport, etc.).

The study process integrates the use of scientific articles and the latest research findings. The use of research results is foreseen in the orientation courses, especially at master's and doctoral level. For example, in the Master's study programme courses "Work Environment Expertise" (Prof. H. Kalķis), "Occupational Health and Fundamentals of Occupational Medicine" (Prof. Ž. Roja) and in the doctoral study courses "Human Factor and Ergonomics Subjective Methods" (Prof. Ž. Roja, Prof. H. Kalķis) and "Objective Methods of Human Factors and Ergonomics" (Prof. H. Kalķis, assoc. prof. M. Reinvee) students use research results (secondary data and objective data from experiments) to justify the necessity and use of methods of work environment protection and ergonomics in the study process. Course descriptions are regularly updated to include the latest specialised literature, scientific articles and databases. Lectures are based on the latest theoretical knowledge and methods of analysing various issues, and the analysis of scientific articles is part of many courses. Lecturers also present the results of their research to students. It should be noted that new ideas also emerge during the study process and the need for research on specific issues crystallises.

In the result of study programmes, graduates demonstrate the ability to manage large-scale occupational health and safety projects at national and international level, to contribute to the creation of new knowledge and solve practical professional tasks, to contribute to the development of the occupational health and safety sector and integrate into the global scientific research environment, as well as are motivated to independently improve their scientific qualification.

All study programmes have one or more courses aimed at introducing students to the nature of scientific work, research methods, the analysis of specialised literature, and the processing, reflection and presentation of research results. In the course of their studies, students learn to use various databases and modern computer programmes for processing research results. Particular attention is paid to the application of the acquired knowledge and skills in practice. A number of students interested in research go on to doctoral studies. The PhD programme pays particular attention to scientific research.

During their studies, students of the doctoral study programme will develop dissertations on topical theoretical and practical topics of relevance to their organisations and institutions, such as Improvement of Welfare Strategy in Relation to Human Factors and Employee Turnover in manufacturing companies in Latvia; Psychosocial risks for office workers in face-to-face and remote work and the role of sleep hygiene in reducing them - a new challenge for occupational safety and health; Psychosocial risks for office workers in face-to-face and remote work and the role of sleep hygiene in reducing them - a new challenge for occupational safety and health. The human factor in occupational health and safety in the Latvian business environment, etc.

Scientific research is a regular part of the study process: both within individual study courses (reports, essays) and in coursework and final projects, in which students investigate a specific topical issue. Students continuously choose their own research topic, using the knowledge and skills acquired during their studies. The work is presented and defended within the course or in front of a commission. Guest lectures by foreign professors are organised regularly.

The Doctoral Schools of the University aim to improve the quality of research at the University by creating opportunities for interdisciplinary research, involving young scientists and fostering cooperation between the various departments of the University, as well as local and foreign universities, institutions and experts from the economy. Regular thematic discussions are organised with representatives of the relevant economic sector, institutional staff and social partners to ensure the practical relevance of research and its relevance to current market requirements.

Detailed information on the link between science and the study process within the study programmes is available in the self-evaluation reports of the study programmes.

In summary, it can be concluded that the research activities of the academic staff of the field of study are closely related to the study process, promoting students' understanding of the relevance of the field to the existing needs of the field. In the implementation of study programmes of the Study Field "Internal Security and Civil Defence", lecturers and employers are involved, who regularly cooperate in the improvement of study processes, thus achieving a successful transfer of practical and theoretical knowledge, including link between disciplines in the development of students' knowledge and skills. Students are involved in research work, producing final study papers for each study programme, in particular the final study papers for the Master's and Doctoral programmes are of high scientific merit. Students in the programmes have the opportunity to volunteer as research participants in research carried out by the academic staff of the programme, thus gaining a better understanding of the research process. For example, students participate in the organisation and implementation of various surveys, collecting the necessary data and processing and analysing the results. The faculty members of the study field, with their competence and professional experience, working in the relevant field, successfully working in various

institutions (including non-governmental ones, e.g. Latvian Ergonomics Society, Business Efficiency Association, etc.), help to better understand various processes in the field of occupational safety and health and create good opportunities for participation in various researches and help to exchange and increase experience. The feedback from graduates and employers shows that employers use the research results of students' final theses in their professional activities and that the specialists prepared are competent, knowledgeable and in demand in the labour market.

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.

International cooperation in scientific research in the field of study is manifested in various ways: as participation of academic staff in international projects, participation in international scientific conferences, participation in their organisation, chairing conference sections. Active cooperation with foreign partners is also manifested in the publication of internationally significant research results together with foreign researchers. In addition, several lecturers of the study field are involved in internationally recognised, citable journals (as editorial board members, reviewers), e.g. journals such as "Human Factors and Ergonomics in Manufacturing & Service Industries" and are members of international and regional research networks/organisations/associations, e.g. International Ergonomics Association (www.iea.cc), European Federation of Ergonomics Societies (www.ergonomics-fees.eu), European Centre for Registration of Ergonomists (www.eurerg.eu/), etc.

At the international level, the field of study has a strong focus on Labour protection and ergonomics, as well as occupational health promotion research. Research has a high capacity thanks to the extensive network with foreign partners, including universities (more than 180 bilateral agreements between universities and within the Erasmus+ programme). This fosters international cooperation and interdisciplinary research.

Participation in international research projects is a very important area of scientific activity. During the reporting period, on average 2-4 international research projects were carried out per year, including cooperation with partners from the USA, Estonia, Spain, etc. (see attached CVs and project participations of lecturers).

Academic staff are actively involved in internationally renowned journals as members of the editorial board, e.g., H. Kalķis, Ž. Roja, B. Sloka, A. Cekuls, A. Viksna, A. Actiņš, etc.

Successful cooperation in Master's and Doctoral programmes has been established with several internationally renowned professors and researchers in the field of project, research and conference organisation: prof. Andris Freivald (USA), Prof. Eda Merisalu (Estonia), Prof. Marina Jarvis (Estonia); prof. Victor Oltra (Spain), etc.

During the reporting period, cooperation with many foreign universities continued in terms of joint research, guest lectures, joint projects, publications, conferences (University of Life Sciences, Estonia; Taltech, Estonia; University of Valencia, Spain; Penn State University, USA, etc.).

For the purpose of experience exchange and qualification improvement, lecturers regularly visit foreign universities (University of Life Sciences, Estonia; Taltech, Estonia; University of Valencia, Spain; Penn State University, USA etc.). More detailed information on international cooperation is

provided in the Self-Evaluation Reports of the study programmes.

In cooperation with foreign partners and non-governmental organisations, an annual international conference is organised at the University of Latvia, within the framework of which a section "Human Factors, Ergonomics and Working Environment, Industrial Engineering" is organised on topical issues in the field of occupational safety and ergonomics in Latvia and the world. The conference is attended by the academic staff of the Faculty, Latvian and foreign researchers, as well as LU bachelor, master and doctoral students.

It should be noted that successful research cooperation has also been established at the national level (Riga Technical University, Riga Stradins University, Latvian University of Life Sciences and Technologies), which is often reflected at the international level. Cooperation is manifested and planned in the implementation of joint projects, research, the organisation of international conference sections, etc.

Academic staff and scientists are active members of several international institutions/organisations, e.g. prof. Henrijs Kaļķis and assoc. prof. Ženija Roja represent the Latvian Ergonomics Society (www.ergonomika.lv (only in Latvian)), the Business Efficiency Association (www.efektivs.lv (only in Latvian)), the International Ergonomics Association (https:/iea.cc), the European Federation of Ergonomics Societies (www.ergonomics-fees.eu), the European Ergonomists Registration Centre (www.eurerg.eu), Institut CEDIMES (Centre for Studies in International Development and Economic and Social Movements,), Lettonie (http://www.cedimes.org/ , France), Business Systems Laboratory (www.bslaboratory.net, Italy), the Latvian Young Scientists Association and other organisations. For example, prof. Biruta Sloka serves as Deputy Chairperson of the Scientific Council of the German-Baltic High School Office, a Member of the DAAD application evaluation Commission of the German academic Exchange Service, works as a leading expert on various accreditation commissions, Member of the organ committee of several international scientific conferences, and is President of the Latvian Association of Statisticians, Member of the Board of the Latvian Association of Professors of higher Education. Member of the Board of Directors of the Association of Economists of Latvia, Member of the European marketing and Management Association (EUMMAS), Member of the Latvian Statistical Council and Member of THE Advisory Council of Eurostat (ESAC).

Further development of international co-operation is planned in the study field, creating new contacts in order to improve doctoral and scientific research possibilities, e.g. prof. H. Kaļķis has established business contacts with Estonian entrepreneurship University of applied Sciences (Estonia) in 2023. In the future, cooperation not only in student and teacher mobility, but also through a university to build ties with smart city (SMART city), which will open up extensive research opportunities, especially for doctoral and master level students, during the next accreditation period.

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.

In the Study Field, the involvement of teaching staff in scientific research is actively encouraged. At University level, a system for professional development of LU academic staff and a Science Excellence and commercialization support program have been developed and

implemented, providing material support for publication in category Q1 or Q2 in the Web of Science database.

Faculty students, doctors, and researchers have access to modern research infrastructure. The Faculty provides unique access not only to scientific publications databases (SCOPUS, Web of Science, EBSCO), but also to statistical databases (Orbis) and analytical databases (MarketLine, Passport). The Faculty strongly supports the participation of academics in international conferences and the publication of research results at international level if the publication meets the Q1 level. The importance of the research carried out at international level is demonstrated by a large number of academic staff publications in journals and other publications indexed in globally recognised databases (SCOPUS, Web of Science, EBSCO). The total number of publications exceeds 300 in the reporting period (see Annex 9). It should be noted that several academics have also published scientific monographs and textbooks during the period of observation (more than 15 books), such as J. Šķilters, H.Kaļķis, Z. Roja, B. Sloka, A. Freimane, R. Razuks, etc.

Academic staff in the study field are actively involved in research. The data collected (see teachers' CVs, publication lists and research projects in the accompanying self-assessment annexes) show significant results in research. Academics carry out research in accordance with their specialisation, e.g. ergonomics, occupational health, labour protection, efficient work organisation, and other related research directions.

Research and studies focus heavily on cooperation with social partners, including the Employers' Confederation of Latvia, the Latvian Chamber of Commerce and Industry, the Latvian Ergonomics Association, the Business Efficiency Association, as well as private and public enterprises.

The topicality and significance of the research carried out by by academic staff is demonstrated by their active participation in several state-funded projects, including projects of the State Research Programme, such as "Development of internationally competitive study programmes promoting the development of Latvian national economy at the University of Latvia" (project No. 8.2.1.0/18/A/015), developers of the doctoral study programme "Human factor, Occupational Safety and Health", experts; performers of the post-doctoral project "Indicators of Ergonomic load in the working environment of modern technologies and possibilities for improvement thereof in the socio-technical system "Human-machine-environment" of the University of Latvia; COST project CA16206 „Empowering the Next generation of Social Enterprise Scholars" representatives in Europe, Brussels; Performers of Rīga Stradins University project "Development of modern diagnostic and research methods for risks caused by nanoparticles and ergonomic factors in workplaces"; Performers of LSC project No. 09.1615 "Survey of quality, Lifelong learning, inclusive and Media Education of the Education system in the Latvian and International context"; Performers of the national research programme "Development of innovative multifunctional materials, signal processing and informatics technologies for competitive science-intensive products", LU subproject nr.3 "Nanostructured modifier-containing self-reinforced polymer composites and development of their respective technologies for applications in intelligent materials and devices"; Performers of LSC Project No. 09.1034 "Socio-psychological and medical biological indicators of healthy ageing and the possibilities for optimization thereof for employees in the system "human - human"; Performers of the Latvian Council of Science project 09.1254 "Study of the physical and mechanical properties of radiation modified multi-component polymeric materials"; Performers of LSC Project No. 09.1253 (LU No 6162) "Changes in the physico-mechanical properties of polymers and their compositions due to large magnetic fields, ionising radiation and their interactions"; Performers of LU project 2008/ZP-17 "Application of the Miotonometry method to detect muscle fatigue for academic staff, office staff and students while working on a computer", etc.

The scientific research activities of the academic staff involved in the implementation of the study

field shall be examined in more detail in the attached self-assessment annexes: academics' CVs, publication list, research projects. It can be concluded that most of Study Field (StF) academics have the rights of an expert specified by the Latvian Council of Science. Academic staff are widely reflected at international level, as is also evidenced by the significant number of international scientific conferences attended by StF academics. Scientists of the Study Field actively engage in knowledge transfer, popularization of science and dissemination of knowledge, comment on current business and economic issues in Latvian media and social networks, participate in social discussions, roundtable discussions in TV and radio, for example, prof. Henry Kaļķis participated in and popularized study field programmes and research of the University of Latvia in the section "Exploring the impact of ergonomics on business" (only in Latvian) of the Latvian television Morning Panorama programme (October 15, 2020) and in the interactive online conversation "Talk about a comfortable business environment" (only in Latvian) of the Latvian Association of young scientists (October 29, 2020). In addition, information regarding the activities and achievements related to studies and science is regularly published on the Faculty's website, social networks, including facebook.com, instagram.com, linkedin.com, which allow a wide audience to be reached.

It should be noted that the Faculty ensures the transfer and succession of knowledge in science, as evidenced by the theses advocated by academics of the study direction: in 2013, Thesis (H.Kaļķis) was defended, in 2014 – I. Reinholds, in 2022 – I. Daugule. It should be noted that several doctors are LU graduates (I. Daugule, I. Reinholds, H. Kaļķis, D. Garais, A. Arāja, etc.), which shows the interest acquired during the study years in continuing research and teaching directly at the University of Latvia.

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.

Students' research activity is consistently stimulated throughout the study process: independent analysis and presentation of topical issues within individual study courses (e.g. reports, essays), which contributes to the understanding of the topical issues of the chosen research topic. Already during their bachelor studies, students prepare their first independent scientific work - a course paper analysing the chosen topic. The preparation of the course work allows to consolidate the theoretical knowledge acquired during the studies and its application to the analysis of specific topical issues. All study programmes of the field of study provide for a final thesis (qualification thesis, bachelor thesis, master thesis, doctoral thesis). This thesis is a compulsory final examination and a prerequisite for the award of an academic degree. The final thesis is a scientific research thesis with an original solution to a topical theoretical and practical problem.

Students have the opportunity to participate free of charge in large-scale international and representative scientific conferences and guest lectures, organised by the University:

- International Conference of the University of Latvia (conference working language: Latvian and English): within the framework of the annual international conference of the University of Latvia, a section is organised in the field of study, in which students (mainly those studying doctoral and master's degree programmes) and lecturers present their research results.
- International conferences organised by the LU in the field of study on 7 October 2011

"Contemporary Ergonomics and Business 2011" https://www.apgads.lu.lv/fileadmin/user_upload/lu_portal/apgads/PDF/LEB-referati_240x160_-iekslapas.pdf and on 5 October 2018 "Ergonomics at Work - A Challenge for Health Promotion "https://www.lu.lv/fileadmin/user_upload/LU.LV/www.lu.lv/Zinas/10-Oktobris/2018_Ergo_konference_Final.docx (only in Latvian)

- Guest lectures (Prof. A. Freivalds https://www.lu.lv/en/about-us/ul-media/news/single/t/49999 (only in Latvian); Prof. V. Oltra https://www.bvef.lu.lv etc (only in Latvian))

Students have good opportunities to participate in research led by academic staff during their studies and to publish results in scientific journals, e.g. in 2014-2022, 5 MSc students were actively involved in publishing scientific manuscripts on such topics: (2020) Causes of Work Related Musculoskeletal Disorders in the Textile Industry; (2021) Ergonomic Indicators and Physical Workload Risks in Food Production and Possibilities for Risk Prevention; (2022). Muscle Fatigue for the Health Staff in Hospital Operating Unit; (2020) Physical Load and Preventive Measures in Metal Manufacturing Industry; (2020) Psychosocial Risks Analysis for Employees in Public Administration; (2018) Stress at Work and Physical Load in Professional Sport.

Master's level students actively participate as listeners and presenters at the annual LU International Conference. For example, in the last 6 years, 19 master students and several graduates of the study programme "Work Environment Protection and Expertise" presented their research results in the section "Human Factors, Ergonomics and the Working Environment, Industrial Ergonomics" of this conference.

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.

In order to ensure the training of specialists of the highest level who are competitive in the European education area and in the labour market, the development strategy and the strategic action plan of the Faculty envisage the modernisation of study programmes and processes by introducing a wide range of innovations.

Innovations implemented at the Faculty of Chemistry of the University of Latvia and in the field of study "Internal Security and Civil Defence" and their impact on the improvement of the study process:

1) Product innovation (includes new or significantly improved goods or services. Product innovation implies significant improvements in technical specification, various components and materials, existing software, user-friendliness or other functional characteristics):

- Involvement of graduates and the field in the study process: graduates actively participate in the annual conferences organised by the LU with presentations and as listeners, graduates are also included in the work of the Study Field Council, as well as are regularly invited to various issues related to the area of labour protection, for example, in the development of occupational standards, graduates also voluntarily participated and provided applied recommendations for the development of occupational standards.

2) Process innovation involves new or significantly improved methods of production or delivery. Process innovation means a significant change in technology, equipment and/or software):

- The Study Programme Board addresses various innovation-related opportunities to improve the study process.
- Learning environment: the new buildings of the University of Latvia allow students to use the available equipment and facilities free of charge for learning new skills and developing work process skills, abilities and competences, e.g. a labour protection classroom (room 621), as well as students can freely use library resources during the learning process, as well as various measuring equipment for improving the study process.

3) Marketing innovation (includes new marketing methods, including major changes not only in product design or packaging, but also in product distribution, product placement or changes in pricing policies):

- Cooperation with the media: the Field of Study and study programmes have been promoted through video stories (e.g., H. Kalķis, 2020 and 2022), lecturers of the Field of Study have published materials related to the Field of Study in popular science magazines and media, including. The study programme has been published in publications and publications related to the study programme (e.g. Latvian National Library, TVNET, newspaper Diena, Naba, etc.).
- Cooperation with NGOs: the Study Field regularly cooperates with non-governmental organisations such as the Latvian Ergonomics Society and the Business Efficiency Association, the Employers' Confederation of Latvia, the Union of Free Trade Unions, the Association of Occupational Safety and Health Professionals, etc., participating in seminars, working groups, expert examinations and conferences.

4) Organisational innovation (includes new organisational methods in the company's business practices, workplace organisation, or external relations):

- The University provides various continuing education opportunities for academic staff and students, especially doctoral students.
- During the reporting period, several scientific researches related to the field of labour protection have been carried out, in which the faculty members of the study direction, graduates and students have participated, e.g., H. Kalķis, Ž. Roja, U. Piekuss, P. Freiberga, I. Grāveris, U. Karlsons, D. Garais, etc.

When evaluating these innovations and their impact on the improvement of the study process, it can be concluded that they have contributed to an increase in the number of research project applications, as well as to more extensive cooperation with occupational health and safety professionals (e.g. attracting experts to the study process, organising guest lectures, exchanging experience in on-site training seminars in organisations, etc.), involvement of students and PhD students in research, and an increase in the number of scientific publications in the Field of Study.

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 various Latvian institutions within the Study Field is in line with the achievement of the Study Field development goals, the implementation of study programmes relevant to the Study Field and related research. Cooperation in Latvia is carried out with labour market actors, including companies, employers, labour market organisations, municipalities, non-governmental organisations, scientific organisations, and other higher education institutions. Cooperation is implemented both through institutional cooperation agreements and through the results of networking of the academic staff of the Study Field in active research and practical activities and participation in the areas of expertise implemented in the Study Field. Cooperation of the Study Field is implemented, for example, with the Employers' Confederation of Latvia, the State Labour Inspectorate, non-governmental organisations, incl. The Latvian Ergonomics Society, the Association of Occupational Safety and Health Specialists, academic and scientific institutions, e.g. RSU Institute of Occupational Safety and Environmental Health, companies and labour market organisations and institutions, e.g. StoraEnso, Ventspils Oil Terminal, Cēsu Alus, Brabantia Latvija, KATE SIA, Rīga HES, etc. The format of cooperation is mainly in the form of guest lectures by representatives of companies/organisations, visits to companies, participation of teaching staff and students in scientific conferences, seminars, including, for example, annual conferences of LU and other Latvian universities (RSU, RTU).

Within the framework of the study direction there is also a long-term successful scientific, academic cooperation with other Latvian higher education institutions, for example, RTU, RSU, LBTU, Banku augstskola, etc:

- Professors from the Study Field and from other universities collaborate on professorial and dissertation councils;
- professors of the Study Field and professors of other higher education institutions cooperate in the final examination committees of bachelor study programmes;
- professors of the Study Field and professors of other higher education institutions, doctoral students and master students cooperate in international scientific projects, scientific and academic conferences, seminars, scientific publications and textbooks;
- academic staff of the Study Field participate in exchanges of experience with lecturers, doctoral students and postgraduate students of other universities;
- students of the Study Field have the opportunity to study the study courses of interest also at other higher education institutions in free elective Part C study courses.
- institutional cooperation in accordance with the laws and regulations of the Republic of Lithuania, e.g. cooperation agreements on continuation of studies at another higher education institution if one of the programmes of the Study Field is closed.

Involvement of employers and professional organisations in studies and research to ensure the use of employers' knowledge and experience, as well as the material and technical base at their disposal (software, etc.) for the implementation of study programmes is implemented mainly in the following formats:

- Involving employers in the preparation of study courses;
- Involving employers in guest lectures;
- Involvement of alumni in the study process (alumni meetings with students);
- Employers provide internships for students;
- Students' practical training in enterprises and institutions;

- Joint seminars with employers;
- Employers are involved in the final examination committees of the field of study (in professional study programmes 50% of the committee members are employers, in academic study programmes as much as possible);
- Employers are involved in the work of the Study Programme Council;
- Employers are invited to participate in surveys on the quality of study programmes;
- Employers are involved in the work of the Study Programme and Programme Board;
- Employers are involved in the advising and supervision of coursework and final theses;
- Employers' concerns are addressed in coursework and final assignments;
- Employers use contacts with academic staff to find specialists and offer jobs or to inform about the need for training and expertise in the company;
- Employers participate in scientific conferences;
- Career days are organised by the University, with representatives of major employers presenting jobs offered to students and informing about career and development opportunities;
- Academic staff provide advice to employers individually, by teaching lifelong learning courses and by lecturing at seminars organised by employers' associations.

The bilateral nature of the cooperation of the Study Field with the labour market and the public sector is particularly positive, creating added value not only for the Study Field, but often also for its cooperating institutions.

The study programme is conducted in cooperation with the Employers' Confederation of Latvia, the Free Trade Union Confederation of Latvia, the Latvian Ergonomics Society, the Business Efficiency Association, the Latvian Association of Labour Protection Specialists, the Labour Department of the Ministry of Welfare, the Ministry of Education and Science, and other organisations. Links and cooperation have been established with graduates' workplaces. Discussions with the employer are an integral part of the evaluation of the study programmes of the Study Field. The cooperation/discussions provide information on graduates' working conditions, motivation for work and career opportunities. Cooperation is also maintained with the State Labour Inspectorate, which is the place of work for a relatively large number of graduates. As a result of the cooperation with LEC, LFTU and LMDD, guest lectures are often organised for the students of the Programme. For example, regular guest lectures are held in the autumn semester of each academic year (November), when LFTU representatives (lawyers and occupational safety specialists) explain to the students the latest changes in the laws, Cabinet Regulations and other legislation in the field of labour protection.

Close cooperation in the field of study has existed with the RTU Faculty of Materials Science and Applied Chemistry and its institution - the Institute of Polymer Materials (Dr.habil.ing.sc. M. Kalniņš and Dr. eng.sc. J. Zicāns). Within the framework of the cooperation, the two faculties organise joint classes and lectures with guest lecturers (Professor E. Vedējs, University of Michigan, USA, Professor A. Freivald, Pennsylvania State University, USA). Collaboration is taking place in joint research on nanoparticles (assist. prof. Ž. Roja), polymers, silicates and ceramic composites (research led by professors A. Actiņš and A. Vīksna, participating in the Programme). Joint conferences are also organised with RTU (P. Walden Symposium and EcoBalt International Conference).

There is cooperation with the Institute of Occupational Safety and Environmental Health of Riga Stradiņš University (Director, Dr. I. Vanadziņš). The field of cooperation is occupational health and occupational medicine. Within the framework of this cooperation, the students of the direction choose several health care institutions as internships, as well as participate in annual scientific conferences of RSU with presentations. Several graduates choose to write master theses on the

impact of occupational risk factors on workers' health. RSU Agency staff provide advice and carry out the necessary laboratory measurements in occupational physiology, physical and chemical risk assessment, if required for the Master's thesis.

In particular, cooperation activities are carried out not only in the study and research process in the Study Field through guest lectures, study visits, case studies in study process activities and research papers, consultations and other activities directly in the study and research process in the Study Field, but also in the cooperation institutions in the Study Field, including the labour market. For example, in cooperation with one of the partners of the field of study, the Latvian Ergonomics Society, in 2022 several students, doctoral students, graduates, lecturers, guest lecturers and invited experts of the study field participated in the organisation of training for middle-level managers and inspectors of the Riga Municipal Police and SJSC "Latvijas Dzelzceļš" in the field of labour protection and ergonomics. In 2022, students, doctoral students, graduates and lecturers of the study field have also participated in several visits to companies, such as Jēkabpils PMK, Ventspils nafta Termināls, Stora Enso Packaging, etc, where they have both acquired in-depth practical knowledge, skills and competences related to occupational and civil protection, occupational safety, ergonomics, as well as provided added value to the companies by offering and implementing training for company representatives, assessing the company's occupational safety management and operational processes, e.g. in LEAN efficiency, etc.

Regarding the criteria for the selection of cooperation partners, the Study Field and its programmes select cooperation partners according to current trends in study and research content, in the labour market and in scientific and public debate, including national and societal debate. The cooperation of the Study Field with Latvian institutions to a large extent is based on the long-term scientific and practical experience of the lecturers involved in the Study Field and the resulting network of cooperation partners. At the same time, new cooperation partners are being added every year, in line with the aforementioned aspects of current affairs.

As for the Study Field's mechanism for attracting employers, it is implemented through the above-mentioned cooperation formats, with the cooperation agreements being channelled for approval and approval mainly through the study programme's teaching staff structure, programme management, faculty management structure and, as necessary, for larger or centralised cooperation agreements, through the relevant support structures and management of the University of Latvia.

See **Annex 10** for a list of cooperation agreements.

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.

International cooperation of the Study Field is implemented both through joint international

cooperation platforms, such as ERASMUS+, Campus Europae, ERASMUS+ Global Mobility, ISEP exchange programmes, as well as by implementing cooperation projects within the framework of bilateral agreements. Students are offered opportunities to participate in various exchange programmes and to study abroad for a semester or a year. Students can also undertake internships (full or partial) in study programmes of other foreign universities or colleges, and students, academic and administrative staff can exchange experiences within the framework of bilateral cooperation agreements. LU has more than 150 ERASMUS+ cooperation agreements with universities across Europe and the EEA and 18 Campus Europa cooperation agreements with European Universities. ISEP exchange students also have the opportunity to spend a semester at a US university, as well as at a partner university under a bilateral agreement. The following mechanism is in place to attract appropriate employers and cooperation partners:

- employers and cooperation partners with close links to educational institutions, research institutes specialising in occupational safety and health. Partners that can offer expertise, resources and opportunities for joint research projects or the development of new technologies and solutions in the field of occupational safety and health were considered;
- cooperation with enterprises and organisations active in the field of labour protection to promote practical training, workplace risk assessment or offer students internships. The ability of partners to make a practical contribution to the study programmes by providing examples of real situations and training in practical knowledge and skills was also assessed as important;
- cooperation with associations in the field of labour protection (Latvian Ergonomics Society, Business Efficiency Association), which can help to ensure that study programmes are relevant and up-to-date with industry requirements and standards, and can also provide valuable support in student networking, expanding career opportunities and learning about the latest developments in study programmes;
- cooperation with national authorities responsible for labour protection issues and legislation can help ensure that study programmes are aligned with national rules and requirements. These partners can also offer expertise and support in the development and evaluation of study programmes.

To attract employers to the study field, a mechanism is in place based on partnerships with various companies and organisations active in the field of occupational safety and health, e.g. competent authorities and international organisations with examples of good practice. These partners are invited to participate in the development of study programmes, give guest lectures, organise internships and participate in the implementation of study courses. This allows students to become familiar with real situations in occupational safety and health and provides practical experience in the study process.

Students in the Study Field have increasingly started to take an interest in and apply for inbound and outbound mobility opportunities, as in recent years there have been opportunities for Erasmus+ students to do internships or work placements abroad (short-term Erasmus+ mobility) to develop their knowledge, skills and competences, which will be very important not only for the student in their future work, but also for their employers. So far, students have not used this opportunity in practice (only bachelor students have), as students in professional programmes are all mainly working, and mobility involves long absences and thus absenteeism. The Covid-19 pandemic also caused serious problems in Latvia and elsewhere in Europe, when international travel and other forms of travel were restricted. Each academic year, the programme directors tell current and incoming students about mobility opportunities and the benefits of an internship with a foreign organisation/company or university in occupational health and safety.

Several aspects are taken into account when concluding cooperation agreements with foreign

universities. Offering study courses in English to students in the relevant field of study (labour protection, ergonomics, human factors, etc.) in order to ensure maximum recognition and alignment after exchange studies. The research areas of the university are also analysed, as well as the possibilities for the development of scientific research. Academic staff and students of the field of study may propose the conclusion of an agreement. The proposal is examined by the External Relations Coordinator of the Faculty of Chemistry of the University of Latvia, evaluating the above conditions to ensure the real use of the agreement for the implementation of international programmes.

Foreign cooperation of the Study Field is mainly expressed in the form of guest lectures by representatives of companies/organisations, visits to companies, participation of teaching staff and students in scientific conferences, seminars, including, for example, in 2023 6 PhD students participate in the scientific conference of the University of Tartu. The study programme also cooperates with other foreign universities, such as the Estonian University of Life Sciences, Penn State University, USA, and the University of Valencia, Spain. For example, in the 2015/2016 academic year, the study area invited a guest lecturer, professor Sylvain Leduc from the University of Marseille (France), who gave two series of lectures on "An approach to ergonomics analysis in French-speaking countries" (9 April 2015) and "European trends in ergonomics" (6 May 2015). The main activities of the cooperation are, for example, in the final examination commissions of bachelor, master and doctoral study programmes, international scientific projects, scientific and academic conferences, guest lectures, seminars, preparation of scientific publications and textbooks; exchange of experience with lecturers, doctoral and master students of foreign universities, participation of academic staff in preparation of study courses, study tours, work of the Study Field and Field Council; scientific advising of doctoral theses.

It should also be mentioned that foreign cooperation in the implementation of studies, research and expertise of the Study Field is indirectly manifested in the cooperation of the Study Field with Latvian institutions, through which the students and lecturers of the Study Field also have the opportunity to engage in international cooperation activities. For example, in 2022, in cooperation with the Latvian Ergonomics Society, one of the students of the doctoral programme of the Study Field participated in international training and received a certificate from the Certification Centre for European Ergonomists (CCEE) for successfully passing the European Ergonomist title.

During the reporting period, a good cooperation was established with the Estonian University of Life Sciences. For example, two students of the study programme "Working Environment Protection and Expertise" participated in the Estonian University of Life Sciences Master's level students' conference in May 2016 with reports: Ilze Kantāne (scientific supervisor, assist.prof. Henrijs Kaļķis) and Sarmīte Rūtiņa-Rūtenberga (scientific supervisor, assoc.prof. Ženija Roja). Two scientific publications were also published in the Proceedings of the Students' Scientific Conference: Rutina-Rutenberga S., Roja Z. Psychological risks at work and relationship with the work ability of the call centres employees. EESTI MAAÜLIKOOL. Publikatsioonide Kogumik. 2016, p. 111-116.; Kantane I., Kalkis H. Ergonomic working environment risks and improvement of employee well-being in bookselling organization. EESTI MAAÜLIKOOL. Publikatsioonide Kogumik. 2016, p. 106-110. Estonian University of Life Sciences on the basis of the cooperation agreement signed on 25 March 2014 between the University of Latvia and Estonian University of Life Sciences (Tartu, Estonia), fully covered the travel and accommodation expenses of both students. The agreement provides for further cooperation in the field of student and lecturer exchanges, joint seminars, conferences, congresses in the field of labour protection and ergonomics.

Also the leading lecturers of the Study Field have made connections to develop international cooperation, e.g., Henrijs Kaļķis in the academic year 2015/2016 from 02.06.2016 to 04.06.2016 interned in Sweden at Volvo Cars, learning ergonomics and human factors analysis in car

construction, but from 25.04.2016 to 29.04.2016 delivered a lecture series "Business Excellence trough LEAN and Ergonomics approach" at the University of Valencia, Spain. Assoc. prof. Ž. Roja and assist. prof. Henrijs Kaļķis in the academic year 2015/2016 interned in the USA from 27.07.2016.-31.07.2016 on the topics "Human Factor, Ergonomics and Business Management" and in the German company KATHREIN-Werke KG on the topic "Business Management, Labour Protection Management in the Company, Production Organisation, LEAN Management, Human Factor and Ergonomics".

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.

Until October 2022, 3 study programmes in Latvian were implemented in the Study Field - 1st level professional study programme " Labour Protection", Professional Bachelor study programme "Occupational Health and Safety at Work" and Professional Master study programme "Working Environment Protection and Expertise" - thus, there was not much interest in the Study Field for students to go on long-term mobility programmes. The plans to attract foreign students cannot be a binding criterion, as these study programmes relate to vocational education in the field of labour protection and the content of the study courses is designed to ensure that the knowledge meets the relevant Latvian occupational standards, e.g. "Senior Specialist in Labour Protection". Other countries have different legislation, regulations, and procedures for training occupational safety and health specialists. Looking towards further development and improvement of studies, some original courses in English in the field of labour protection could be offered, which could be of interest to foreign students. The low number of exchange visits among Erasmus students is due to the fact that they all work alongside their studies and it is difficult to find equivalent study programmes and relevant courses in Europe due to the different laws and regulations governing labour protection in the different Member States of the European Union. In the previous reporting period, the study programmes did not offer courses in English, but this has been incorporated in the new development plan, so that in the next reporting period the study programmes will offer some courses in English. From October 2022, the Study Field will offer a doctoral programme on Human Factors, Occupational Safety and Health. The study programme is licensed and included in an accredited field of study and is also designed to be implemented in English. In the first year of the programme implementation, the study programme is implemented in Latvian with some study courses or their parts offered in English and foreign lecturers assigned accordingly - Dr. Eda Merisalu, Head of the Department of Biosystems Engineering, Professor of Ergonomics, Estonian University of Life Sciences, and Dr.eng. Märt Reinvee, Professor of Industrial Engineering, Department of Industrial Engineering, Penn State University, USA, Dr. Andris Freivald (as guest lecturer and consultant), Dr. Victor Oltra, associate professor of management science, Department of Business Administration, Faculty of Economics, University of Valencia, Spain. Foreign academics teach several courses or parts of the science and specialisation modules of the PhD programme. The foreign lecturers are recruited according to a system that complies with the procedures laid down by the legislation of Latvia and the University of Latvia and takes into account the experience, qualifications and experience of the lecturers in the field of occupational safety, occupational health and human factors. So far, the Study Field has also attracted a number of foreign lecturers, e.g. on the following topics:

- Current and forward looking issues in Occupational Safety and Health in Europe (Sylvain Leduc, Dr., Eur.Erg., President of the Federation of European Ergonomics Societies (FEES), France)
- The case for professional certification in ergonomics in Europe (Bernard Dugué, Dr., Eur.Erg., President of Centre for Registration of European Ergonomists (CREE), France)
- Evaluating the effectiveness of the labour inspection in Switzerland in preventing psychosocial risks (Margaret Graf, Dr., Eur.Erg., Swiss State Secretariat for Economic Affairs – Working Conditions, Head of Occupational Health (Research) Division, Switzerland)
- Ergonomics education in Switzerland (Thomas Stüdeli, Dr., Eur.Erg., Associate Director Human Factors Engineering at Merck Serono S.A. / Ares Trading S.A., Switzerland)
- The impact of the mobility and the digital transformation (Caroline Bringand, Ergonomist & Service Designer, France)
- Contemporary low cost EMG application and quality (Märt Reinvee, M.Sc., University of Life Sciences, Estonia)
- The Qualimetry Ergonomics of Labour. Daniil Maksimov, PhD in Economical Sciences, Russia
- A “prevention method” from organization perspective (Maria Niessen, MSc.,Eur.Erg., Expert at the HR Health & Safety Department ING Netherlands, Netherlands)
- Ergonomics development trends in Estonia (Märt Reinvee, M.Sc., University of Life Sciences, Estonia, Board member of Estonian Ergonomics Society (Estonia))
- Ergonomics development trends in Lithuania (Kazys Algirdas Kaminskas, Dr., Assoc. Prof., President of Lithuanian Ergonomics Association; Aušra Stankiuvienė, Dr., Assoc. Prof., Vilnius Gediminas Technical university, Vicepresident of Lithuanian Ergonomics Association (Lithuania).

Foreign cooperation of the Study Field is mainly manifested in the form of guest lectures by representatives of companies/organisations, visits to companies, participation of teaching staff and students in scientific conferences, seminars, including, for example, in 2023 6 PhD students participate in the scientific conference of the University of Tartu. The study programme also cooperates with other foreign universities, such as the Estonian University of Life Sciences, Penn State University, USA, and the University of Valencia, Spain. In the reporting period, two students of the study programme "Work Environment Protection and Expertise" participated in the Estonian University of Life Sciences Master's level students' conference in May 2016 with presentations and published abstracts: Ilze Kantāne (scientific thesis supervisor assist. prof. Henrijs Kaļķis) and Sarmīte Rūtiņa-Rūtenberga (scientific thesis supervisor assoc. prof. Ženija Roja). During the reporting period, several scientific researches related to the field of labour protection have been carried out, in which the faculty members of the Study Field, graduates and students have participated, e.g., H. Kaļķis, Ž. Roja, U. Piekuss, P. Freiberga (participation in a US conference with a published scientific article), I. Grāveris (participation in a US conference with a published scientific article - the article received an award for the best scientific article of the conference in the category "Physical Ergonomics"), U. Karlsons, D. Garais, etc. This has contributed to an increase in the number of research project applications, as well as cooperation with the industry, involvement of students and doctoral students in research, and an increase in the number of scientific publications in the Study Field.

Other main activities of the cooperation are, for example, participation in final examination committees of Bachelor's, Master's and Doctoral study programmes, international scientific projects, scientific and academic conferences, guest lectures, seminars, preparation of scientific publications and textbooks; exchange of experience with lecturers of foreign universities, doctoral and master's students, participation of academic staff in preparation of study courses, study tours, and scientific consultancy of doctoral theses.

In the autumn semester of 2023, the English-language stream of the PhD programme is planned to start, attracting international students as well as additional international lecturers, for example from the Bremen University of Applied Sciences in Germany, the North-West University of Applied Sciences in Switzerland, Utrecht University in the Netherlands and Tallinn University of Technology in Estonia. The implementation of the doctoral study programme in English with foreign students and lecturers will also facilitate the offer of foreign study experiences (guest lectures, exchange of experience, networking, further potential cooperation) in the 1st level, Bachelor's and Master's study programmes, which are mainly implemented in Latvian.

With regard to outgoing mobility of teaching staff and students abroad, each year the staff of the Study Field participate in short- and medium-term study trips abroad, funded by Erasmus, other programmes or their own funds, for guest lectures, research, internships and other academic cooperation activities abroad. For example, the faculty members of the StF have participated in 5-day lecture series training on the topic "Human Factors, Ergonomics and Business Management", AHFE training, Los Angeles, USA (2016); internship on production organisation, LEAN management, human factors and ergonomics at KATHREIN-Werke KG, Rosenheim, Germany (2015..), mobility to the University of Valencia (Spain) on "Human resource management and Ergonomics approach" (2017, 2018, 2021), etc.

In the near future, the volume of mobility is also planned to increase, because already in 2023 the Head of the Study Field prof. H.Kaļķis participated in mobility at the University of Tartu, giving guest lectures; in 2022 - within the BAFF programme, he interned at the Department of Industrial Engineering at Pennsylvania State University, USA, giving guest lectures; in 2015, 2017, 2018, 2021 - at the Department of Business Administration, Faculty of Economics, University of Valencia, Spain, giving guest lectures.

Overall, the mobility dynamics of the Study Field is growing and will accelerate with the implementation of the new PhD programme in English from October 2023. The outgoing mobility of lecturers in the field of study is at a good level, ensuring an adequate integration of foreign experience and practice in the study and research process of the field of study. In terms of difficulties, the fact that the programmes of the Study Field have so far been implemented in Latvian, resulting in low student mobility, as well as the fact that the students of the Study Field programmes are largely employed, thus with very limited opportunities, e.g. in the use of Erasmus. This challenge can be partly addressed by the LU and by state-funded study places and scholarships, which would also allow students to make more use of study mobility abroad.

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.

Basically all recommendations from the previous accreditation have been followed and implemented. The information is summarised in Annex 14. One recommendation related to "explore

the possibility of joint degree programmes" was implemented, but no joint degree programme was established. This is because the opportunities were widely offered and the partners approached during the reporting period (RTU, RSU, LBTU, DU, etc.) categorically refused to establish joint study programmes in the specifics of the study programmes offered in the field of study. Therefore, a new doctoral study programme "Human Factors, Occupational Safety and Health" was established with the participation of professors from the University of Valencia (Spain), Pennsylvania State University (USA), Estonian University of Life Sciences. The feedback from existing PhD students is very positive about the new PhD programme and the recruitment of foreign faculty for the implementation of the programme is effective. This is reflected in the students' knowledge, which has been evaluated positively.

The study environment has been improved because since 2016 the study programmes of the Study Field have been implemented in the new LU complex in Torņkalns, which fully meets the modern requirements for a modern study environment.

The promotion of student and faculty exchange is embedded in the development plan of the field of study and has improved dramatically in terms of faculty mobility compared to the previous accreditation. This improves the quality of studies and the transfer of knowledge from lecturer to student, which is also positively evaluated by students in their feedback. Student mobility is limited mainly because students are mostly all working and do not choose to go on long-term mobility. At the same time, it should be noted that two students from the Master's programme have started their mobility as of the academic year 2022/2023 and one student from the Bachelor's programme has already been on short-term mobility. It is expected that mobility will be used by an increasing number of students, as there is an opportunity for short-term mobility placements, which are relevant to the specificity of the study programmes of the Study Field. It should be noted that during the reporting period, mobility was also limited by the Covid19 pandemic.

The experts' indication to promote cooperation with other universities has been fulfilled and is regularly ensured, e.g. teaching staff from RTU and LBTU as well as from RSU have been involved in teaching.

A plan for attracting younger academic staff has been developed in the Study Field and is included in the Study Field Development Plan, e.g. 7 PhD students have started active work in the study process in the academic year 2022/2023. Doctoral students from other universities and study programmes are being recruited. According to the expert guidance on balancing Master's programmes, the Professional Master's programme is well balanced and developed according to the expert guidance. The study programme includes new courses that are in line with current labour market trends and in line with student feedback (student-centred approach significantly respected).

Due to the fact that during the implementation of the Study Field there have been changes in several laws and regulations of the Cabinet of Ministers of the Republic of Latvia concerning the sphere of work environment protection, changes have been made in the content and practical implementation of study courses in order to ensure the quality of studies. It should be noted that the recommendations of the experts of the previous accreditation concerned one master's study programme, as the other study programmes in the Study Field "Internal Security and Civil Protection" had not yet been implemented. The most significant changes in the study programme " Work Environment Protection and Expertise", which is based on a human-centred approach to the study process (student feedback) and the latest scientific and practical knowledge in the field of occupational protection during the reporting period were as follows:

1. Increased the amount of lectures, seminars and practical work in the course "Working Environment Expertise" from 2 CP to 4 CP. This course complements the presentation with the latest knowledge on risks in the working environment and covers the most popular risk

assessment methods, guidelines, risk matrices and computer programmes in the world. The course is extended by the use of books written and published by the faculty members of the field of study: The monograph by Prof. V. Kalķis - Methods of Work Environment Risk Assessment. Human Factor and Ergonomics at Work (Roja Ž. and Kalķis H., Riga, 2020, 294 p.), LEAN Organised Workplace: 6S Practical Tips (Skalberga I., Kalķis H., Roja Ž., 2022), "Ergonomics at Work with Digital Devices. Practical tips." (Roja Ž., Kalķis H., 2022); "Occupational Health and Risks at Work" (Kalķis V., Roja Ž., Kalķis H., Riga, 2015, 534 p., scientific monograph - approved at the meeting of the Council of the Faculty of Economics and Management of the University of Latvia, protocol No. 52 (19 May 2015)).

2. The course "Chemistry and Environmental Protection" has been replaced by the course "SDSK5179: Sustainable Development of the Environment in the Context of Occupational Health". The changes have been made in accordance with the requirements of the legislation of the Republic of Latvia and the current trends in environmental protection, as well as following a student-centred approach and listening to students' wishes.
3. New study courses "Fundamentals and Legal Aspects of Labour Law", "Records Management in Labour Protection" were introduced into the study plan.The changes were made in accordance with the labour market requirements (recommendations of employers and graduates, recommendations of associations) and by following a student-centred approach and listening to the students' wishes.
4. Increase in the amount of lectures, seminars, and practical work in the course "Fundamentals of Ergonomics" - from 2 to 4 CP. This course provides knowledge of the latest developments in ergonomics of physical workload in relation to labour protection and safety of workers' health, as well as knowledge of work stress, including knowledge of personnel management. This knowledge is extended by the use of the assist. prof. Ž. Human Factors and Ergonomics at Work (Roja Ž. and Kaļķis H., Riga, 2020, 294 pp.), LEAN Organised Workplace. Practical tips." (Roja Ž., Kalķis H., 2022); "Occupational Health and Risks at Work" (Kalķis V., Roja Ž., Kalķis H., Riga, 2015, 534 pp. Basic Ergonomics. Riga, SIA Drukātava, 2008, 195 pp; Roja Ž., Kaļķis H., Roja I. Pain in the back, ergonomics will help you, Riga, Latvian Ergonomics Society, 2007, 18 p., Roja Ž., Kaļķis H., Roja I. Communication with a computer - comfort or discomfort? Ergonomics will help you. Riga, Latvian Ergonomics Society, 2007, 25 p.; Roja Ž., Kaļķis H., Roja I. Stress and violence at work, Riga, Latvian Ergonomics Society, 2006, 49 p.; Roja Ž., Kaļķis H., Roja I. Work-related musculoskeletal and connective tissue disorders. Ergonomic solutions. Riga, Latvian Ergonomics Society, 2016, 19 p.; Roja Ž., Kaļķis H., Roja I. Stress and violence at work. What to do? Riga, Latvian Ergonomics Society, 2016, 76 pp.
5. The content of the study course "Occupational Toxicology" is supplemented with the principles of monitoring and control of chemical risks, as well as with new methods of assessment of chemical factors in accordance with new European Union directives on occupational health and safety of workers (Directive 89/391/EEC), on chemical safety (Directive 98/24/EC) and on registration of chemical substances (Regulation No 1907/2006 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals).
6. Changes have been made to the content of the study course "Protection of the Working Environment", covering physical (noise, infrasound, ultrasound, vibration, microclimate, lighting, ionising, infrared and laser radiation, electromagnetic fields, increased and decreased atmospheric pressure, etc.), chemical, biological, ergonomic and psychosocial factors of the working environment. This course of study covers the issues defined by the EU documents in the field of material sciences in relation to the protection of the working environment: "Nanosciences and nanotechnology. European Environment and Health Action Plan" (applications and hazards of nanotechnology, toxicokinetics of nanoparticles, testing and monitoring methods).
7. Study courses "Sustainable Development of Environment in the Context of Labour Protection"

(Assoc. Prof. A. Arāja), "Labour Environment Protection" (Assoc. Prof. I. Reinholds), "Occupational Health and Occupational Medicine" (Assoc. Prof. Ž. Roja), "Ergonomics Basics" (Assoc. Prof. Ž. Roja), "Health Promotion at Work" (Assoc. Prof. Ž. Roja), "Commercial Management" (Assoc. Prof. Ž. Roja), "Occupational Health and Occupational Medicine" (Assoc. Prof. Ž. H. Kalķis), "Quality Management Methods" (prof. H. Kalķis), the lecturers regularly invite guest lecturers - knowledgeable practitioners in occupational health and safety, risk assessment of the working environment, entrepreneurs, project managers, so that students can get acquainted with practical experience in organisations on site. In this context, during the last academic years, students had the opportunity to gain practical experience in several organisations (SIA KATE, AS Aldaris, AS Cēsu Alus, SIA Ventspils nafta terminals, AS Cēsu Alus, SIA Lexel fabrika, SIA ABB, Stora Enso Packaging, etc.).

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).

During the reporting period, a licence was obtained for the doctoral study programme "Human Factors, Occupational Safety and Health" and the professional bachelor's study programme "Occupational Health and Safety at Work". As indicated, all recommendations have been fulfilled for these two study programmes.

The recommendations made by the experts on licensing of the new study programmes, their implementation plan and execution have improved the overall quality of the studies, strengthened the inclusion in the Latvian and international scientific space, as well as the cooperation with organisations, including the development of the implementation of study programmes and the possibilities of commercialisation of the results. See Table 2.6.2.1 and Table 2.6.2.2 for the implementation plan and implementation of the recommendations made by the study programme licensing experts.

Table 2.6.2.1.

Implementation plan and follow-up of recommendations made by doctoral licensing experts

No.	***Rekommendation***	***Activity/Result***	***Date of implementation***
Short-term recommendations to be completed before the start of the study programme			

1.	*Review the agreement on the possibility for students to continue their studies in another study programme in case this study programme is denied accreditation or has its licence revoked, providing students with a degree that is closer to engineering and the specificity of the study programme.*	*Agreement with Riga Technical University (Attached as Annex 22). The offer of doctoral study programmes of Latvian and foreign higher education institutions has been reviewed again and the possibilities of concluding additional agreements to ensure that students continue their studies in another study programme in case this study programme is refused accreditation or its licence is cancelled, ensuring that students obtain an equivalent degree, have been assessed.*	*Completed*
2.	*Clarify the title of the degree to be awarded in the Diploma, available in Annex 12, point 8, to read 'other engineering and technology'..*	*The degree to be awarded - "Doctor of Science (PhD) in Social Sciences" - has been clarified, in line with the title recommended by the licensing panel. The corrected version of the diploma is attached in the Annex.*	*Completed*
Long-term recommendations (until accreditation)			
1.	*Update the resources available in the library that are relevant to the field of study and have been published after 2016.*	*This is done on a regular basis and additional library resources relevant to the field of study will be purchased during the implementation of the programme. The management and the Faculty of the University are committed to financially support the acquisition of these resources.*	*Regularly, every year by the end of September*
2.	*Developing a commercialisation concept for research. To establish active cooperation with the Student Business Incubator of the University, as well as with industry associations (e.g. Latvian Business Efficiency Association, etc.), state development finance institutions (e.g. Altum, Investment and Development Agency of Latvia).*	*At the start of the programme, work has also started on research into the concept of commercialisation, in line with the thesis topics submitted and approved on the basis of expert advice. It is planned to establish cooperation with the Student Business Incubator, Latvian Ergonomics Society, Business Efficiency Association, Latvian Chamber of Commerce and Industry, individual companies, state financial development institutions, incl. LIAA, Altum, etc.*	*2024 September 1*
3.	*Ensure an inter-departmental communication system.*	*During the implementation of the study programme, all necessary measures are taken to ensure a stable and effective interdepartmental communication system, such as regular face-to-face and remote meetings with study programme lecturers, scientific colloquia, implementation of joint scientific research, organisation of a separate section of the LU scientific conference related to the specifics of the study programme.*	*Permanently*

4.	*Re-evaluate the sources of funding for the study programme in order to bridge the gap between the cost of the study programme and the programme fee*	*The possibilities and sources of funding for the study programme are assessed in order to bridge the gap between the cost of the study programme and the programme fee. Partners and funding opportunities in the private sector are already being sought.*	*2023 August 1*

Table 2.6.2.2.

Implementation of recommendations provided in the licensing process of the Professional Bachelor's study programme “Occupational Health and Safety at Work” during the reporting period

No.	Recommendation	Activity	Responsible	Implementation
1.	External evaluation recommendations for the study programme (licensing/accreditation experts)			
1.1.	To ensure acquisition of practical skills in laboratory and practical work, which will improve the knowledge of students regarding the operation of measuring instruments necessary for control of the work environment, supplementing the content of the study programme with appropriate activities	Seminars and practical tasks included in existing courses have been discussed and opportunities have been found with the academics of the study programme. The tasks carried out will also include the practical application of the measuring devices concerned.	Study programme director, course lecturers	Completed
1.2.	Compile recommendations and suggestions from employers, so-called support letters and individual conversations, supplementing the content of the study programme accordingly	Opportunities have been discussed and found with the teachers of the study programme to clarify the seminars and practical tasks included in the existing courses in accordance with the recommendations of employers in order to build the practical skills of the students	Study programme director, course lecturers	Completed

1.3.	Include simulations of situations in the content of study courses by modelling emergencies during which the student must perform specific tasks in order to resolve the situation (for example, fatal accident, action of a labour protection specialist, drawing up of documentation)	Opportunities have been discussed and found with the lecturer of the course JurZ4135 “Investigation and Accounting of accidents at work” included in the study programme to improve the tasks of the seminars already provided for within the scope of the current course, including practically solving issues regarding the features of photo and video fixation, compilation of testimony and preparation of documents.	Study programme director, course lecturers	Completed
1.4.	Include subjects in study course content that would allow students to expand their skills to reason critically and develop communication/argumentative skills	Opportunities have been discussed and found with the lecturer of the course Psih3086 “Psychology of emotions and communication” included in the study programme to improve the tasks of the seminars already provided for in the current course, further increasing the involvement of the students themselves in various role-playing games, thereby strengthening the theoretical knowledge acquired and promoting students' practical communication and reasoning skills.	Study programme director, course lecturers	Completed

1.5.	To use situational research games and creative approaches for the diversification of the study process also in the acquisition of theoretical knowledge	Necessary additions have been discussed with the course lecturers, including the need to include situational research games in the study process. For teaching theoretical materials, they are adapted to the environment of e-studies and the use of its possibilities, with the aim of providing greater knowledge of different theoretical knowledge, offering them not only in classical lecture format but complemented by online materials and interactive tasks freely available to the student.	Study programme director, course lecturers	Completed
1.6.	Review lists of recommended sources of literature and information in study course descriptions by updating them and adding new sources	Course instructors have repeatedly reviewed revisions of literature lists, as well as collaborating with the LU Library replenish the existing literature collection.	Study programme director, course lecturers	Completed

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	Annex 1. List of the Main Internal Normative Acts and Regulations of the University of Latvia_03-04-2024.docx	1.pielikums_Saraksts_ar_galvenajiem_augstskolas_ieksejiem_normativajiem_aktiem_un_regulejumiem_LV_ENG_03-04-2024.docx
The management structure of the higher education institution/ college	Annex_2_Management structure of the institution of higher education.docx	2_pielikums_Augstskolas pārvaldības struktūra_LV.docx
II - Description of the Study Field - 2.1. Management of the Study Field		
Plan for the development of the study field (if applicable)	Annex_3_Development plan of the study direction.docx	3_pielikums_Studiju virziena attīstības plāns.docx
The management structure of the study field	Annex_4_Structure for the Management of the study direction.docx	4_pielikums_Studiju virziena pārvaldības struktūra_LV.docx
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.	Documents confirming provide students opportunity to continue n another SP or HEI.zip	Dokumenti_par_iespejam studet citur.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.	Compensation_policy_statement_en.docx	Rektora apliecinājums kompensācijai SV_Iekšējā drošiba.edoc
Standard sample of study agreement	Examples of agreement.zip	Tipveida 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	Annex_5_Analysis of survey results for students, alumni and employers.docx	5_pielikums_Studējošo, absolventu un darba devēju aptauju rezultātu analīze.docx
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	Annex_6_Basic information regarding the teachers involved in the implementation of the study direction.xlsx	6_pielikums_Pamatinformācija par studiju virziena īstenošanā iesaistītajiem mācībspēkiem_LV.xlsx
Biographies of the teaching staff members (Curriculum Vitae in Europass format)	Annex_7_Teacher biographies.pdf	7_pielikums_Mācībspēku biogrāfijas.pdf
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.	Annex_7_1_Direction driver's certification regarding knowledge of the official language of teaching staff involved in the implementation of study programmes.pdf	7_1_Pielikums_Virziena vadītāja apliecinājums par studiju programmu īstenošanā iesaistīto mācībspēku valsts valodas zināšanām_LV.pdf
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)	Annex_7_2_Proof of English proficiency of teaching staff involved in the implementation of the study programme at level B2.pdf	7_2_Pielikums_Apliecinājums par studiju programmas īstenošanā iesaistīto mācībspēku angļu valodas prasmi B2 līmenī_LV.pdf
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.	Annex_8_Summary of qualitative data regarding the scientific activity of the study direction.docx	8_pielikums_Kvalitatīvo datu apkopojums par studiju virziena zinātnisko darbību_LV.docx
List of the publications, patents, and artistic creations of the teaching staff over the reporting period.	Annex_9_ List of teaching staff publications for the reference period.docx	9_pielikums_Mācībspēku publikāciju saraksts par pārskata periodu_LV.docx
II - Description of the Study Field - 2.5. Cooperation and Internationalisation		
List of cooperation agreements, including the agreements for providing internship	Annex_10_List of cooperation agreements.docx	10_pielikums_Sadarbības līgumu saraksts_LV.docx
Statistical data on the teaching staff and the students from abroad	Annex_11_Statistics on foreign students and teaching staff.docx	11_pielikums_Statistikas dati par ārvalstu studējošajiem un mācībspēkiem.docx
Statistical data on the incoming and outgoing mobility of students (by specifying the study programmes)	Annex_12_Statistics on outbound and incoming mobility of students.docx	12_pielikums_Statistikas dati par studējošo izejošo un ienākošo mobilitāti.docx
Statistical data on the incoming and outgoing mobility of the teaching staff	Annex_13_Statistics on incoming and outgoing mobility of teaching staff.docx	13_pielikums_Statistikas dati par mācībspēku ienākošo un izejošo mobilitāti.docx
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.	Annex_14_Recommendation Timeout Report 2703.docx	14_pielikums_Rekomendāciju izpildes pārskats.docx
An application for the evaluation of the study field signed with a secure electronic signature	Application for the Assessment.docx	Iesniegums AIC studiju virziena "Iekšējā drošība un civilā aizsardzība" novērtēšanai (J.Logins).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)		

Other annexes

Name of document	Document
30. pielikums Atsauksmes par virzienu	30_pielikums_Atsauksmes par virzienu.docx
Annex 30 References on the implementation of the study field Internal Security and Civil Defence	Annex 30_References on the implementation of the study field Internal Security and Civil Defence.docx
29. pielikums Aprīkojuma saraksts	29_pielikums_aprikojuma saraksts.pdf
Annex 29. List of available technical equipment	Annex 29_List of available technical equipment.pdf
Kārtība par nevēlēto mācībspēku un zinātnieku pieņemšanu darbā Latvijas Universitātē.pdf	Kārtība par nevēlēto mācībspēku un zinātnieku pieņemšanu darbā Latvijas Universitātē.pdf
Latvijas Universitātes profesoru padomes nolikums.pdf	Latvijas Universitātes profesoru padomes nolikums.pdf
Latvijas Universitates Kvalitates rokasgrāmata_03.01.2024..pdf	Latvijas Universitates Kvalitates rokasgrāmata_03.01.2024..pdf
University of Latvia Quality Managements Handbook.pdf	University of Latvia Quality Managements Handbook.pdf

Work Environmental Protection and Expertise (47862)

Study field	*Internal Security and Civil Protection*
ProcedureStudyProgram.Name	*Work Environmental Protection and Expertise*
Education classification code	*47862*
Type of the study programme	*Professional master study programme*
Name of the study programme director	*Ženija*
Surname of the study programme director	*Roja*
E-mail of the study programme director	*zenija.roja@lu.lv*
Title of the study programme director	*Asoc. prof., Dr. med.*
Phone of the study programme director	*+371 29563591*
Goal of the study programme	*To prepare qualified specialists who can participate in ensuring the protection of the working environment of commercial companies, state or municipal institutions or public organisations, by organising, supervising and carrying out expert assessments of the working environment protection system in accordance with the requirements of external regulatory enactments, modern labour market trends and the latest scientific knowledge.*
Tasks of the study programme	*1. To provide the opportunity to study the Program by acquiring knowledge and developing skills and competences in work environment protection and expertise in accordance with the requirements of external regulatory enactments, to provide the opportunity to acquire the professional qualification of Senior Specialist in Labour Protection, which provides knowledge and skills in accordance with the requirements of the occupational standard "Senior Specialist in Labour Protection".* *2. To provide students with the opportunity to apply creatively the latest scientific knowledge in the field of occupational safety and health, reflecting it in practice, by carrying out risk assessment of the working environment in enterprises, and in research work.* *3. To provide students with information technology and computer applications for professional health and safety duties and research, as well as for the acquisition, creation and sharing of digital content, which they can use responsibly and safely in practice.* *4. To develop high professional ethics, critical thinking, and communication skills in students.* *5. To develop students' skills in conducting independent scientific research and preparing reports and publications, as well as the art of presentation.* *6. To provide motivation for continuing education, professional development and further research activities.*

Results of the study programme	*Knowledge:* *1. knows modern approaches to the organisation of labour protection, the identification and assessment of work environment risks, and work environment expertise;* *2. identifies scientifically sound preventive measures, taking into account Latvian and European Union policies and global experience in this field.* *Skills:* *3. can identify risks in the work environment and assess workplace safety issues independently;* *4. can formulate and put into practice the possibilities of optimal solution of problems of work environment protection, implementing the latest knowledge on preventive and protective measures, collective and individual means of work protection;* *5. independently plan and carry out experimental studies on the effects of physical, chemical, biological, mechanical, psychosocial and ergonomic hazards on workers, with a view to creating a safe working environment and ensuring the protection of workers' health at work;* *6. can interpret the results of research, process them using special occupational health and safety software, prepare presentations for conferences and articles for publication in journals, develop the ability to apply communicative and organisational skills in practice.* *Competence:* *7. are able to take responsibility for their professional activities in occupational safety and health or related fields;* *8. are able to objectively evaluate and present research results in collaboration with specialists from other disciplines;* *9. are able to apply and diversify the knowledge acquired during the studies on the protection of the working environment and expertise according to the changing labour market situations in Latvia and abroad and, if necessary, to carry out additional research and its analysis;* *10. be able to understand and apply business principles and innovative approaches to labour protection, using critical analysis and creative thinking.*
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)	*First cycle higher education or equivalent higher education in natural sciences or engineering and entrance examination.*

Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Professional Master`s degree in Labour Protection*
Qualification to be obtained (in english)	*Senior Specialist in Labour Protection*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, CENTRA RAJONS, RĪGA, LV-1050

Full time studies - 1 years - latvian

Study type and form	*Full time studies*
Duration in full years	*1*
Duration in month	*0*
Language	*latvian*
Amount (CP)	*40*
Admission requirements (in English)	*First cycle higher education in labour protection with the qualification "Senior Specialist in Labour Protection", or " Occupational Safety Engineer" or equivalent professional qualification.*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Professional Master`s degree in Labour Protection*
Qualification to be obtained (in english)	*Senior Specialist in Labour Protection*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, 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.

Professional Master’s Study Program “Work Environment Protection and Expertise” (PMStP "WEPE") (47862) is implemented within the study field "Internal Security and Civil Defence". During the reporting period, no changes have been made to the study program parameters.

The Director of the study program is continuously planning improvements and the WEPE study program plans to work even more closely with employers to give young people the opportunity to learn the skills they need in occupational safety and health in cooperation with business representatives. The planned improvements are described in detail in the Study Program Development Plan (Annex 3), while the following additional activities are planned for the next reporting period in the context of the overall development of the Study field:

- cooperation with organisers of industry conferences to promote more active involvement of students by attending various events in labour protection (conferences, exhibitions) thus gaining an insight into the current developments in labour protection in the industry (organisation), specifics and principles of operation;
- Master's student consultancy project team: employers can apply for a consultancy project where students research an organisation on labour protection issues and develop a specific strategy for a specific labour protection problem within a limited timeframe;
- cooperate more closely with the Employers' Confederation of Latvia (LDDK) and Latvian Chamber of Commerce and Industry (LTRK), as well as sector associations, using their internal information channels to reach out to employers and receive feedback;
- raise the prestige of vocational education in labour protection by involving employers more in the process of developing the content of professional education, designing new courses and updating new professional standards relevant to the field of study (e.g. ergonomist, etc.);
- it is planned to increase the number of student practice placements by selecting organisations and production sites in sectors that are a priority in Latvia, such as the use of local resources (timber, etc.), innovative materials and nanotechnologies (polymer nanocomposite processing, etc.), due to the impact of developments in natural sciences and technology on the content and quality of higher education;
- it is planned to increase the involvement of Master's thesis topics in the expertise of work environment risks in sectors defined in Latvia as hazardous industries with a diversity of risk factors (woodworking, construction, metalworking, etc.).

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 training of occupational safety and health specialists at the level of the professional Master's degree fully complies with the highest strategic planning and development documents of the Latvian state, as well as with the subordinate normative acts regulating the Latvian higher education space and its quality. They in turn are subject to the study field (StF) "Internal Security and Civil Defence" (ISCD) and the corresponding PMStP "WEPE". At the highest level, the Study Field (StF) and PMStP are in line with the priorities of the Latvian National Development Plan and the Strategy for Sustainable Development of Latvia until 2030 (http://polsis.mk.gov.lv/documents/3323): modern education, knowledge base, productive innovation system, polycentric development aimed at promoting the long-term development of the economic sectors of the Republic of Latvia. This is in close connection with the Strategic Plan of the University of Latvia, which states: "to offer new interdisciplinary or international excellence programmes for specially prepared or motivated students".

The title of the PMStP "WEPE" clearly and unambiguously indicates the programme's affiliation to the disciplines of civil protection and internal security, and is thus closely linked to the degree to be obtained in the result of the study programme. The title is linked to the formulation of the main objective of the programme, underlining the orientation of the programme towards the protection and expertise of the working environment, as stated in its title.

The name of the PMStP "WEPE" is identified by the study programme code 47862 according to the Latvian Classification of Education, which reflects the content of this study programme, as the classification code 862 corresponds to the group of educational programmes "Occupational Health and Safety", while 47 corresponds to the second cycle professional higher education (professional master's degree).

The degree "Professional Master`s degree in Labour Protection" and the seventh level professional qualification "Senior Specialist in Labour Protection" correspond to the title of the programme, including the relevant branch of science and focusing on the current trends in labour protection and expertise in Latvia and Europe. After completing the study programme, its graduates have acquired the necessary theoretical and practical knowledge of labour protection and expertise of the working environment at master's level, which has been consolidated during the training practice and transformed into the skills of a qualified specialist. The title of the study programme and its content indicate the acquisition of modern and interdisciplinary knowledge, skills and competences in a specific sector, because in a current era of rapid technological development and change (Industry 4.0 and Industry 5.0). The protection of workers is of particular importance - it focuses on people at work, human factors in the work process and its consequences.

The admission requirements for the study programme are defined accordingly. The general conditions are specified on the LU website (https://www.lu.lv/gribustudet/). Full-time studies - 2 years (4 semesters). Previous qualifications: First cycle higher education (Bachelor's degree or second level professional higher education (or equivalent) in natural sciences or engineering and entrance examination. The programme has different implementation times depending on previous education. Full-time regular studies - 1 year (2 semesters). Previous education: First cycle higher education (including second level vocational higher education) in labour protection with the qualification "Senior Specialist in Labour Protection" or "Occupational Safety Engineer" or an equivalent professional qualification. https://www.lu.lv/gribustudet/ -Only in Latvian). Full-time regular studies - 2 years (4 semesters). The two full-time studies (2 years, 4 semesters and 1 year,

2 semesters) have entry requirements and a formula for calculating the competitive grade in the entrance examination. The entrance examination consists of 3 parts: a test covering basic knowledge in occupational safety and health, a logical solutions test, a situation analysis. The entrance test takes place on a specific date and each part is timed accordingly. According to the admission requirements, the programme can be completed within two or one academic year, following the set study plans and timetables. This duration is important as it provides clarity on the time students have to dedicate to complete the programme. The study programme has a total number of credits that must be completed in order to obtain the qualification at the end of the study programme. Study courses are assessed by credits and students are required to achieve a certain number of credits to successfully complete the programme of study.

The admission conditions of the study programme are developed in accordance with the laws and regulations of the Republic of Latvia and the aims and objectives of the study programme. The study programme is designed in accordance with the Law on Vocational Education and the binding regulations of the Cabinet of Ministers of the Republic of Latvia. The content of the study programme fully complies with the occupational standard "Senior Specialist in Labour Protection" (https://registri.visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-207.pdf -Only in Latvian). The content of the study programme is fully subordinate to the achievement of the aim and objectives of the study programme, as it includes general education study courses, which ensure the adequacy of knowledge, skills and competences to the professional Master's degree to be obtained and to the national standard.

The content of the study programme is competitive and relevant to the requirements of today's labour market. This is supported by the comparison of study programmes with other higher education institutions in Latvia and abroad (see Table 3.1.2.1). The content of the study programme in Latvian higher education institutions is determined by the professional standard.

Table 3.1.2.1

Comparison of the study programme with similar study programmes

Name of university	University of Latvia	**Riga Technical University (Latvia)** https://www.rtu.lv/lv/studijas/visas-studiju-programmas/atvertiGAN?department=22000&type=4, (Only in Latvian)	**Daugavpils University (Latvia)** https://du.lv/en/studies/study-programmes/professional-master-study-programmes/labour-protection/	**Latvian University of Biosciences and Technology (Latvia)** https://eplatforma.aka.lv/index.php?r=site%2Fprogram%2Fview&id=158,	**University of Valencia (Spain)** https://www.uv.es/uvweb/college/en/masters/master-v-degree-occupational-health-safety-128613080741.0/Titulacio.html?id=1285857494169	**National University of Ireland, (Ireland)** https://www.universityofgalway.ie/courses/taught-postgraduate-courses/occupational-environmental-health-safety.html
Title of program	Work environment protection and expertise	Labour protection	Labour protection	Labour protection and security	Occupational Health and Safety	Occupational and Environmental Health and Safety
Volume (CP or ECTS)	*80 CP/ 120 ECTS 60 CP / 90 ECTS*	*60 CP / 90 ECTS*	*80 CP / 120 ECTS*	*80 CP / 120 ECTS*	*300 CP / 150 ECTS*	*60 CP / 90 ECTS*
Degree to be obtained	Professional Master's degree in Labour Protection	Professional Master's degree in labour protection	Professional Master in labour protection	Professional Master in labour protection	Master's degree in occupational health and safety	Master's degree in occupational health and safety
Qualification to be obtained	Senior Specialist in Labour Protection	-	Senior Specialist in Labour Protection	Senior Specialist in Labour Protection	-	-
Location of implementation (city; incl. branches)	Riga	Riga	Daugavpils	Jelgava	Valencia, Spain	Galway, Ireland
Language(s) of implementation	Latvian	Latvian	Latvian	Latvian	Spanish	English
Current annual tuition fee, EUR	1600,00 14 budget places	1750,00 no budget places	1600,00 15 budget places	1870,00 (925 per semester) no budget places	Fee per credit point: 12.79 € 1st year – 767.40 € 2 gadā – 511.60 €	Students outside the EU 14666,00€ Students from the EU 5666,00€ (Full tuition fee).
Brief description of the main aspects of the LU study programme	• *Modern study process* • *Comprehensive knowledge of workplace risks, health promotion.* • *The content of the study program is designed in accordance with the Latvian and world trends in labour protection* • *Competitive academic staff - leading experts in Latvia and recognised experts abroad involved in the program* • *Modern study environment*					

In Latvia, similar study programmes are run by Riga Technical University, Latvian University of Life Sciences and Technologies and Daugavpils University. The study programmes are similar in nature, as they lead to the professional qualification "Senior Specialist in Labour Protection". The exception is Riga Technical University, where no such qualification is awarded (http://www.niid.lv/niid_search/program/551?qy=Darba%20aizsardz%C4%ABba%20RTU&ct=&tg= (Only in Latvian)).

In comparison with the University of Valencia (Spain), we can see that the number of credits to be studied is higher (100 CP), because the following study courses are additionally implemented in the study programme of this University: 'Introduction to Science', 'Scientific Methods and Tools', which are not included in the study programme of the LU. However, the training practice programme at LU is longer (26 CP) compared to the University of Valencia (15 CP). In Latvia, the legislation

requires that a professional study programme must have at least 26 CPs of internships). The study programme offered by the National University of Ireland is very similar to that of the LU, with a strong emphasis on human factors and ergonomics courses. There is no Occupational Toxicology course at this University.

The competences of senior occupational health and safety specialists, which are linked to the possibility of carrying out their professional activity as an economic operator, are relevant today. Therefore, the course "Business Management" covers the basics of business, while the course "Information Technology" provides students with enhanced training in the use of modern technologies and relevant software.

The director of the study programme “WEPE” at the University of Latvia, Ženija Roja, in cooperation with the leading lecturers or lecturers responsible for the implementation of study courses, closely monitors changes in the global labour market and supplements the study programme accordingly, planning its development in the context of the Latvian National Development Plan and the Sustainable Development Strategy of Latvia until 2030. "Economic growth" and "Human security", as well as the priorities of the Latvian Smart Specialisation Strategy "Modern education", "Knowledge base", "Productive innovation system", "Polycentric development", which are aimed at promoting the long-term development of the economic sectors of the Republic of Latvia. The scope of the study programme is in line with the first priority of the European Commission Communication "New Priorities for European Cooperation in Education and Training" on building relevant and high-quality skills and competences, focusing on learning outcomes, employability, and innovation in the modern working environment.

3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.

PMStP "WEPE" is implemented in the field of study "Internal Security and Civil Defence", which currently includes the following study programmes:

- First-level professional higher education study program "Labour Protection";
- Professional bachelor’s study program “Occupational Health and Safety at Work”;
- Doctoral study program “Human Factors, Occupational Safety and Health”.

The "WEPE" study programme is fully in line with labour market demand. In this regard, scientific institutes, ministries (RSU Institute of Occupational Safety and Environmental Health, Ministry of Welfare, Ministry of Health, Ministry of Environmental Protection and Regional Development), labour and environmental administration institutions (State Labour Inspectorate, State Environmental Office, State Environmental Bureau, Radiation Safety Centre, etc.), public organisations (Latvian Association of Labour Protection Specialists, Latvian Ergonomics Society, Latvian Employers Confederation, Free Trade Union Confederation of Latvia) have been identified.

According to the institutions and information centres identified (Lursoft, etc.), the labour market is still not saturated. Employers are also interested in graduates, as evidenced by the large number of students whose higher vocational education studies are paid for by the employer if the student has not received state budget funding through a competitive procedure (the LU currently receives state budget funding for the training of 14 students each year).

The relevance of the study programme to the labour market demand is supported not only by the results of employer surveys, but also by the feedback from professional organisations (feedback

from the Employers' Confederation of Latvia, the Free Trade Union Confederation of Latvia and other organisations - see Annex 30). In all surveys, the evaluation of the LU study field and the corresponding programme is positive. Overall, the feedback from employers and professional organisations on graduates' readiness for the labour market is positive. The feedback stresses that there is a great need for such a training programme, as the number of competent specialists in the field of working environment protection in the country is insufficient. Employers mainly stressed the need to increase practical training in organisations in the course, emphasising the practical application of the various risk assessment methods.

It is important to note that studies and research on labour protection and expertise are in line with the priority directions of Latvian science development (On priority directions of science for 2018-2021 - Cabinet of Ministers Order No 746; Protocol Cabinet of Ministers Order No 246 (14.04.2021) Science, Technology Development and Innovation Guidelines 2021-2027). In accordance with Article 13(2)(3) and Article 34(4) of the Law on Scientific Activity, the following priority areas in science have been identified, which are closely related to the objectives and achievable results of the Master's study programme, e.g. technologies and engineering systems, increase in processes (research problems in line with the challenges of modern technologies, technology development, smart systems development, public safety; technologies for remote data collection, research on ICT methods, etc.); public health (incl. health and well-being, human health, health care, public well-being and health improvement); knowledge culture and innovation for economic sustainability (incl. Innovation for economic growth and sustainable development, knowledge and technology transfer, internationalisation, social security and quality of life, building social capital); demography, sport, open and inclusive society, well-being and social security; national and public security and defence.

It should be noted that the Master's programme covers all the priority research areas identified in the LU strategy: scientific excellence; study development; contribution to society; environment and governance with a focus on green thinking and sustainability; and organisational culture.

The study programme responds to a number of education priorities set by the European Commission: an economy that works for people; protecting the European way of life; a stronger Europe in the world; a Europe fit for the digital age. The scope of this study programme is in line with the first priority of the European Commission Communication "New Priorities for European Cooperation in Education and Training" on building relevant and high quality skills and competences, focusing on learning outcomes, employability, innovation and civic engagement.

Professional organisations, taking into account the rapid development of technology, following the results of the previous accreditation period, including the Nordic Ergonomics Society (NES) and the European Federation of Ergonomics, emphasised the need to strengthen students' knowledge of ergonomics in the study field and also in the professional master's study programme "WEPE". In this context, the amount of lectures, seminars,and practical work in the course "Fundamentals of Ergonomics" has been increased to 4 CP. This course provides knowledge on the latest findings in the field of workload ergonomics, cognitive ergonomics, taking into account the importance of the human factor in the work process and linking it to occupational safety and health protection of workers. This knowledge is extended by books of assoc. prof. Ž. Roja and prof. H. Kalķis: *Ergonomics of Working with Digital Devices. Practical Tips.* Riga , 2022, Gutenbergs print, 44 p.; *Human Factor and Ergonomics at Work*, Riga, Gutenbergs print, 2020, 294 p.; Ž. Roja *Ergonomics basics*. Riga, SIA Drukātava, 2008, 195 p.; Ž. Roja, I. Roja, H. Kalķis Sāp mugura, Tev palīdzēs ergonomika (*Pain in the back. Ergonomics will help you*), Riga, Latvian Ergonomics Society, 2007, 18 p.; Ž. Roja, H. Kalķis *Communication with a Computer - Comfort or Discomfort? Ergonomics will help you*. Riga, Latvian Ergonomics Society, 2007, 25 p.; Ž. Roja *Work-related musculoskeletal and connective tissue disorders. Ergonomic solutions.* Riga, Latvian Ergonomics Society, 2016, 19 p.; Ž.

Roja and H. Kalķis, *Stress and Violence at Work. What to do?* Riga, Latvian Ergonomics Society, 2016, 76 p.

In the period from 2013 to 2022, about 136 employers employing graduates of the Programme were surveyed, including the competent institutions (the list of competent institutions can be found on the website of the Ministry of Welfare of the Republic of Latvia: www.lm.gov.lv). The survey on graduate employment shows that more than 95% of graduates are employed in their specialisation, see Table 3.1.3.1.

Table 3.1.3.1

Areas in which graduates work and their percentage distribution

Areas of activity	**Distribution of graduates by year, %**				
	2013 (29 graduates)	**2014 (32 graduates)**	**2015 (34 graduates)**	**2016 (34 graduates)**	**2017 (23 graduates)**
Science	2	4	7	6	4
Labour protection institutions	10	9	10	9	30
Environment protection institutions	-	2	-	3	9
Health protection institutions	3	4	3	9	22
Educational institutions	2	5	14	9	13
Production companies	79	73	62	59	13
Other	4	3	4	6	9
Areas of activity	**Distribution of graduates by year, %**				
	2018 (26 graduates)	**2019 (19 graduates)**	**2020 (13 graduates)**	**2021 (17 graduates)**	**2022 (14 graduates)**
Science	1	1	1	1	1
Labour protection institutions	8	6	3	4	3
Environment protection institutions	-	-	-	-	-
Health protection institutions	3	2	2	3	3
Educational institutions	4	4	2	4	2

Production companies	3	2	2	2	2
Other	7	4	3	3	3

The relevance of the study programme to labour market demand is confirmed by the results of graduate and employer surveys. Graduates are mainly employed in manufacturing companies (85% on average). Many of them work in state institutions (State Labour Inspectorate, Ministry of Welfare, Ministry of Education and Science, etc.), companies (Latvenergo,Ltd. ABB, Ventspils Oil Terminal, Putnu fabrika Ķekava, Cēsu alus, Aldaris, Grindeks, etc.), banks (DNB, Nordea bank, etc.). It should be noted that all graduates have obtained the status of a competent person in accordance with Cabinet of Ministers Regulation No 723 (08.09.2008 as amended on 21.08.2012) "Regulations on the requirements for competent institutions and competent specialists in labour protection and the procedure for assessing competence" (a full list of such persons is available on the website of the Ministry of Welfare, www.lm.gov.lv). Many graduates work in training centres and competent institutions, which number more than 50, providing services in labour protection as a competent specialist (as evidenced by employers' feedback).

Analysis of graduate survey data from 2014 to 2022 shows that graduates are successfully applying the knowledge they have gained to improve and improve the working and environmental conditions of a business or organisation. In terms of the responses to the graduate questionnaires, it should be noted that from 2014 to 2015 the maximum value of the questionnaire responses was 7 points, while in 2016 and 2017 the maximum value of the questionnaire responses was 4 points. The data show that the majority of graduates are employed and have job responsibilities that are relevant to their education and apply the knowledge they have acquired during their studies. The majority of graduates started planning their professional development during their studies, believe that their studies prepared them for the labour market and plan to work in the future according to their education. However, the questionnaire responses from 2016 to 2017 show that graduates have a positive view of all the knowledge and skills acquired during their studies (see Annex 5).

The graduates' feedback emphasises that the higher vocational education training programme is very necessary and relevant, as Latvia's accession to the European Union has significantly increased the requirements in the field of labour protection, but the number of competent specialists in the field of occupational safety and health is insufficient. This is confirmed by the steady annual number of students enrolled in the Program.

The most important recommendation of the graduates related to the implementation of the study program was the following: it is necessary to continue guest lectures with the participation of practitioners in labour protection and to implement the study process even more in industrial enterprises. The main comments of the graduates on the study program were: the study process is well organised, interesting guest lecturers are available; the study design was suitable for combining studies with work; when starting to work in a company, the theoretical knowledge acquired in the study program helped to acquire practical skills much faster according to the needs of the company.

Employer survey results. The validated questionnaire for employers developed by the LU was used, see Table 3.1.3.2. A complete set of 137 employers' responses on the prepared competent specialists in labour protection on the following questions was obtained:

Table 3.1.3.2.

Please rate the skills of graduates of the LU WEPE study program who have completed their studies in the last 3 years on a 5-point scale! (0-don't know, can't rate, 1-very bad, 2-bad, 3-average, 4-good, 5-very good)							
		0	*1*	*2*	*3*	*4*	*5*
1)	Theoretical knowledge						X
2)	Practical skills					X	
3)	Skills in acquiring new knowledge and practical skills						X
4)	Skills in identifying and solving problems					X	
5)	Skills in finding and processing information					X	
6)	Skills in working with numbers and mathematical operations					X	
7)	Skills in decision-making and reasoning						X
8)	Ability to propose new ideas and solutions						X
9)	Ability to adapt to new circumstances (changing work environment)					X	
10)	Ability to work independently, defining working methods and deadlines					X	
11)	Knowledge of the Latvian language						X
12)	Knowledge of foreign languages					X	
13)	Skills in working with a computer					X	
14)	Communication skills (oral communication, business correspondence, report preparation, presentation, etc.)					X	
15)	Ability to work in a team					X	
16)	Ability to plan, manage and organise the work of others					X	
17)	Responsible attitude to work						X
18)	Competitiveness compared to graduates from similar programmes at other universities	X					

Employers have rated the skills of graduates over the last 6 years quite highly: 95% of respondents believe that graduates have good theoretical and practical skills, 100% believe that graduates have the skills to acquire new knowledge and skills, about 80% of employers believe that graduates have

the skills to identify and solve a problem, find and process information, work in new conditions and adapt to the environment, work in a team, manage and organise work. Employers (100%) highly value graduates' ability to make and justify decisions and to propose new ideas and solutions. Employers (90%) believe that graduates have a high level of responsibility for the work they do.

It should be noted that 80% of the employers surveyed lack information on the level of knowledge of graduates of similar programmes from other universities.

Some employers (less than 7%) indicated in their questionnaires that they face difficulties in finding the right professionals for different roles, as they lack teamwork and client skills, legal mindset and psychological resilience in the work process. Within the WEPE programme, this knowledge is implemented in the study courses "Business Management" and "Fundamentals of Ergonomics", as well as "Occupational Health and Occupational Medicine". In response to students' recommendations and employers' suggestions, new study courses on "Fundamentals and Legal Aspects of Labour Law" and " Administration in Labour Protection" were created. These courses involve situational tasks requiring students to apply critical thinking, legal reasoning, and psychological resilience in the work process. These issues will continue to be a focus in these courses and throughout the program.

Overall, the data collected in the surveys show that the study program "WEPE" of the Faculty of Chemistry meets its objective, fulfils its function, and is sustainable as it provides the labour market with competent specialists who have acquired professional knowledge and skills.

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.

Statistical data on students enrolled in the study program are summarised in Annex 16.3.
The analysis of statistical data on enrolments and graduates shows that 2013 and 2014 saw the highest number of matriculated students. Between 2017 and 2023, the number of students is lower, but stable at an average of 19 students per year. It can be observed that in 2023, 2022, 2020, 2019, 2014 and 2013 the number of graduates is lower than the number of matriculated students. The number of graduates has also been stable each year, above 10. The change in the number of students could be explained by the impact of the Covid-19 pandemic on the economic situation in Latvia and the loss of jobs during this period, which also affected the finances available to students. Looking at the number of students withdrawn, the number of students withdrawn in the period 2013-2023 was 29. In the data analysis, semester I and II students are mainly withdrawn and the main reason given is "of own free will". No official explanations are available to the management of the study program and the field of study. However, individual discussions suggest that the most important reasons were change of family residence, difficulties in combining studies and work, challenges related to the settlement of tuition fees.
Looking at the distribution of the number of students by funding source, it can be concluded that in the period from 2013 to 2023, budget places are fully filled in all academic years and there are students who choose to study with their own funds each year, e.g. 2015 - 16 students, 2018 - 10 students, 2021 - 5 students, 2023 - 4 students. This confirms once again that the field of study is relevant and in demand.

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.

PMStP "WEPE" is implemented within the study field "Internal Security and Civil Defence" and is aimed at training high-level specialists in labour protection with comprehensive knowledge, skills and competence in ergonomics, occupational safety, work environment expertise, work environment risk assessment, development of protective and preventive measures. The study program is capable of providing the competitive knowledge necessary for all competent occupational safety and health professionals in today's competitive working environment in any sector of the economy. The study program offers courses in labour protection in line with the requirements of the occupational standard and international practice, as well as scientific developments in the field of labour protection.

As businesses grow, labour protection professionals with a wide range of knowledge, skills and competences are increasingly in demand, as today's changing market conditions are also bringing about dramatic changes in companies. Recent scientific trends in labour protection focus on reducing work-related musculoskeletal disorders, mitigating the effects of psychosocial risks at work, and preventing accidents at work. It should be noted that due to the rapid ageing of the workforce, many physical demands at work that could easily be performed by young people are becoming increasingly difficult due to the ageing of the workforce. Computers and process automation are taking over in companies. Nevertheless, there are still issues related to physical overload at work, the increase in work intensity, which causes various health problems for employees, such as musculoskeletal disorders and health problems caused by psychosocial risks, as well as an increase in the number of accidents. Working in hazardous and dangerous working conditions is also a topical issue. Organisations/companies must therefore think about a healthy, safe and fair working environment for all employees, reducing physical strain, reducing repetitive movements in work processes, avoiding harmful and hazardous working conditions, preventing stress/exertion, preventing accidents at work and preserving long-term fitness for work. The content of the courses/modules of this study programme is thus updated regularly in line with the trends in industry, the labour market, and scientific developments.

The aim and objectives of the study program are closely related to the content of the study courses, and students can fulfil them within the study programme by studying:

- study courses that provide knowledge and practical skills on risk factors in the working environment and methods for their identification, assessment and evaluation;
- study courses that provide knowledge and practical skills in production technology safety, including electrical safety, fire safety, hazardous equipment safety and working at heights;
- study courses that provide knowledge on the fundamentals of occupational medicine, occupational health and health promotion at work;
- study courses to learn about ergonomics, quality and efficiency;
- study courses that enable students to understand environmental sustainability in the context of labour protection, acquire knowledge of labour law and administration, and master information technologies;
- study courses that provide knowledge of occupational environmental protection and chemical toxicology;
- study courses that allow learning the basics of management, including quality management methods, personnel management and business management, as well as the legal aspects of labour law and administration related to labour protection;
- practical skills through internship in commercial companies, state or local government institutions and public organisations.

During the reporting period, the study programme "WEPE" was regularly updated in accordance with the trends of the industry, labour market and scientific development. Based on the recommendations of employers and graduates, new study courses "Sustainable Development of Environment in the Context of Labour protection" (replacing the previous study course "Chemistry and Environmental Protection"), "Record-keeping management in Labour protection", "Fundamentals and Legal Aspects of Labour Law", were included in the study program replacing the following study courses "Forensic Chemical Expertise", "Radioecology and Dosimetry", ; "Environmental Site Analysis", as graduates and employers pointed out that these courses had little added value and duplicated the content of other courses. The study program management (director, head of the field, responsible teaching staff), academic staff, representatives of employers, students, results of student and graduate surveys and recommendations were taken into account in updating the study program and developing new study courses. In general, the necessary dynamism and sustainability of the study programme development in accordance with new trends in the field of labour protection science is ensured, its content and structure are improved in accordance with the Strategic Plan of the LU, the development strategy of the Faculty of Chemistry and the recommendations of employers.

In line with the latest trends in occupational safety, ergonomics, risk assessment and economic development, the study program's study courses are regularly updated and course descriptions updated. The course descriptions and updates are made in accordance with the Order of the LU (from 10.08.2018. No. 1/277 with further amendments LU Order of 21.03.2019 No. 1/106) "On the Procedure for the Development and Update of Study Courses at LU". The study programme courses in e-environment (e-studies) are being improved. In updating the content of each study course, the results of research carried out by the academic staff are used in the study process, thus giving students the opportunity to get acquainted with scientific and practical innovations in labour protection, to acquire in-depth knowledge of the latest research (e.g., special contribution was made by LU assoc. prof. Ž. Roja and prof. H. Kaļķis with the latest educational literature, scientific publications in ergonomics, labour protection and organisation of more efficient work processes).

In order to ensure that the study program courses meet the requirements of the labour market and the latest trends, there is also continuous qualification development of teaching staff, cooperation

with industry specialists and employers, as well as foreign visiting professors (e.g. USA prof. Freivalds, Spanish prof. V. Oltra, Estonian prof. E. Mersialu, prof. M. Jarvis, etc.). Guest lecturers or specialists and managers from various companies regularly participate in the implementation of the Master's study program. During the reporting period guest lectures and classes of the study program were conducted by leading labour protection specialists from Latvia, e.g. J. Oboļēvičs - President of the Association of Labour protection Specialists, D. Garais - Managing Specialist of Ventspils nafta termināls Ltd, R. Lūsis - Director of the State Labour Inspectorate, A. Zanders - Managing Specialist of Grif Ltd, A Taukačs - 3M Chief Specialist, A. Putniņš - Board Member of Jēkabpils PMK, etc., as well as from abroad e.g. S. Leduc - President of the European Federation of Ergonomists, M. Graff - Member of the European Council of Certified Ergonomists, K. Zink - Board Member of the International Ergonomics Association, E. Merisalu - Lecturer at the Estonian University of Life Sciences (Tartu), M. Reinvee - Lecturer at the Estonian University of Life Sciences (Tartu), P. Tint - Lecturer at TALTECH University (Tallinn), etc.

In conclusion, the content of the Master's study program "WEPE" provides in-depth knowledge, relevant skills, and competences in line with industry and labour market needs and research trends. The range and content of the study program fully comply with the standard of professional education and ensure the achievement of the set objective. The level of knowledge, skills, competence, and competitiveness enables graduates to find and develop their careers in jobs both in the domestic market and, if necessary, abroad, in accordance with the education they have received. Graduates of this Master's study program acquire the necessary theoretical knowledge and practical skills that give them a real opportunity to continue their studies at doctoral level and to carry out relevant research in Latvia or abroad.

Attached:

- a table on the compliance of the study program with the national education standard (see Annex 17.3.);
- a table on the relevance of the qualification obtained in the study program to the occupational standard or professional qualification requirements (see Annex 18.3.);
- study program plan (see Annex 21.3);
- descriptions of the study program courses (modules) (see Annex 22.3.);
- mapping of study courses to achieve the study outcomes of the Program (see Annex 20.3.).

The programme has two types, see Table 3.2.1.1, which allow students to obtain the necessary vocational training and qualifications based on the criteria of their previous education.

If the prospective student has previously completed a second-level vocational higher education qualification in labour protection with the qualification "Senior Labour protection Officer", he/she may be enrolled in a 1-year study program. If, on the other hand, the prospective student has not previously completed a second-level professional higher education qualification in labour protection with the qualification ' Senior Specialist in Labour Protection ', he/she may be enrolled in a 2-year study program in accordance with the admission rules with the following prior qualifications: a bachelor's degree or a second-level professional higher education qualification (or equivalent higher education qualification) in natural sciences or engineering; or a bachelor's degree or second-level professional higher education qualification (or equivalent higher education qualification) in other fields of education.

Table 3.2.1.1

Types of program depending on the number of credit points (CP) and study algorithms

CP	Algorithm of the parts to be studied (A and B)

40	● *Part A:* complete courses of 10 CP; complete 6 CP of training practice; develop and defend 20 CP of Master's thesis *Part B: 2* CP courses to be selected and completed *Part C*: 2 CP courses to be selected and completed
80	● *Part A:* complete courses of 10 CP; complete training practice of 26 CP; develop and defend a Master's thesis of 20 CP *Part B:* courses of 22 CP to be selected and completed *Part C:* courses of 2 CP to be selected and completed

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 "Professional Master`s degree in Labour Protection", the professional qualification "Senior Specialist in Labour Protection" to be awarded in the result of studying the PMStP "WEPE" is fully compliant with:

- the current conventional wisdom and achievements in the field of labour protection science,
- newer developments and contemporary trends in this field of science,
- the study process itself, which includes the acquisition of theory, the development and strengthening of knowledge, skills and competences, as well as practice in a real work environment, involving study, research and scientific work.

This correspondence between the three categories encompasses both the classical chemical, physical, physiological and biomechanical, hazardous aspects of workplace safety, as well as aspects of the working environment that are of increasing importance today, complementing the classical ones, namely the human factor, ergonomics, remote working, its effectiveness, legal and psychological aspects, technological abundance, including in process, resource and people management, and cognitive aspects. During their studies, students learn classical and recent findings in the field of science, their derivations, and interpretation in broader context of socio-economic governance, carrying out extensive research work with these findings themselves, which is reflected, inter alia, in the study courses, training practise and final theses. Taking into account that the program is also largely attended by practitioners from the labour market and industry, students, especially in the final theses and their recommendations and innovations, often, in addition to analyzing the achievements and findings of the scientific field, propose new models of synthesis of knowledge in line with the latest practical trends, for example, in the research of master theses, different scientific fields are integrated, such as the study of ergonomics and LEAN approach (U. Piekuss, 2021).

The award of the Master's degree by studying the PMStP "WEPE", which is based on the achievements and knowledge of the scientific field, is also clearly supported by the fact that the courses implemented in the programme and their content, descriptions, teaching methods are regularly updated according to the trends of the labour market, their sectors, practice, changes and

also scientific development and its applicability. For example, in the course "Health Promotion at Work", "Occupational Health and Fundamentals of Occupational Medicine", the course instructor presents the students with the latest trends in occupational health and safety at work - the development and implementation of special well-being programmes in workplaces to improve the general well-being of the employee, which is a key component in the promotion of occupational safety. The study programme also introduces new study courses "Fundamentals and Legal Aspects of Labour Law", "Sustainable Environmental Development in the Context of Labour protection", "Records Management in Labour protection". This includes the vision of the programme lecturers - professionals and experts in the field - on the development trends in science and the labour market in the subject of their respective study course, which, in turn, is facilitated by the active practical, scientific and research activities of the program lecturers - participation in conferences, preparation of publications, presentation of reports, participation in research, scientific and experience exchange projects and activities (Regular participation in industry conferences by the study program director, assoc. prof. Ž. Roja, prof. H. Kalķis, asoc. prof. I. Reinholds, lect. D. Garais, etc.). The quality of the study programme content - courses, internships and final papers - and compliance with scientific knowledge is also ensured by internal cooperation and exchange of experience of the program lecturers, external cooperation of the program with the labour market (Employers' Confederation of Latvia) and the state (State Labour Inspectorate), non-governmental (Latvian Ergonomics Society, Association of Occupational Safety Specialists), academic and scientific institutions (RSU Institute of Occupational Safety and Environmental Health), organisations and institutions (StoraEnso, Ventspils Oil Terminal, Cēsu Alus, Brabantia Latvia, KATE SIA, Rīga HES, etc.), e.g. guest lectures by representatives of companies/organisations, visits to companies, participation of teaching staff and students in scientific conferences, seminars, including, for example, annual conferences of the University of Latvia and other Latvian higher education institutions (RSU, RTU). Since 2013, Master's students have been actively involved in presenting their research results at the international annual scientific conferences of the University. For example, in the last 6 years, 19 Master students and graduates of the programme presented their research results in the section "Human Factors, Ergonomics and the Working Environment, Industrial Ergonomics" of this conference. During the last 6 years, guest lectures were given by representatives of the following organisations: Ventspils nafta Ltd. on work safety culture working in confined spaces, Work Safety Ltd. on the procedure for investigating accidents at work, GRIF and 3M Ltd. on personal and collective protective equipment and their application, Insalvo Ltd. on electromagnetic fields and work environment risks, Kate Ltd. on ergonomic solutions in the office, etc.

During the last six years, guest seminars have been organised for students in several companies of national importance: the Riga Hydro Power Plant, the Cēsis Beer Factory, the polymer production company Evopipes, several wood processing companies, e.g., the timber production company MARKO KEA Ltd., the company Getliņi EKO Ltd., the concrete production company Schwenk Latvia and other national and international companies. During Covid-19, when it was not possible to provide face-to-face visits, organisations kindly responded and offered remote site visits/ practical training, e.g. Ventspils Oil Terminal, Stora Enso, Ltd Grif, Ltd Kate, etc.

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.

Oral, written, combined study and assessment methods, including remote study tests, are used during the study courses and examinations.

The study program uses a variety of methods to acquire and consolidate knowledge, such as introductory lectures, interactive lectures, summary lectures, and problem-oriented lectures. Practitioners, professionals from different institutions are invited to lecture on individual courses in order to promote the unity of theory and practice. Situational exercises, seminars, individual, pair and group work, discussions and project development, training seminars in industry organisations/companies are widely used. Employers are involved in the implementation and development of study courses (invited to lead individual seminars/workshops, often organised as exchange visits to workplaces, etc.). During the last 6 years, practical training has been conducted for the Master students in the following companies: furniture company KATE; Stora Enso Packaging, Brabantija Latvia, Knauf, Cēsu alus, Rīga HES, etc. In the companies, students practically identify risks in the working environment. Students practically carry out risk assessment of the working environment, write suggestions and proposals.

To foster the development of students' research competence, students have the opportunity to analyse and study in-depth problems of interest to them in the field in successive courses. Second year students sometimes share their experience with first year students about the process of seminars while studying one of the courses.

The study courses promote students' public speaking, presentation, and discussion skills, using critical thinking. Students prepare mini-projects on topics related to their research, such as occupational risks for woodworkers and health promotion measures; ergonomic risks for office workers working remotely and preventive measures; occupational accidents in metalworking companies, protective and preventive measures. Lecturers discuss with students unclear issues, look for solutions, discuss the art of presentation, suggest improvements, etc.

In order for students to achieve the learning outcomes - to acquire and consolidate knowledge, skills and develop competences - the study process is dominated by methods in which student involvement is important. The study process uses methods that promote student communication in the performance of study tasks, solving real problems in the field, modelling situations. The work is carried out in groups, where students discuss, engage in exchange of opinions, and search for solutions. During face-to-face classes, students have the opportunity to do group work in the library, where literature on the issue under discussion is available. This allows students to apply critical thinking to the topic at hand, based on scientific research.

The physical environment is also gradually changing: classrooms can be easily converted for group work, or individual work, and students can use digital technologies. Lecturers mostly use methods that encourage students' active participation, critical thinking and reflection, e.g. by involving students in discussions on the topic at hand. Students use examples to demonstrate, analyse, and plan the situations they are studying. The e-learning environment is used to support the learning process and independent study. For each study course, an e-learning environment (Moodle) has been created, where students have access to lesson materials, assignment descriptions, additional study materials related to the course topics, as well as study assignments (tests, forums, seminars, conferences, etc.). All grades for mid-term, homework and final examinations are recorded and made available to students in the e-learning environment.

A student-centred approach is followed when updating study programmes and their study courses, with particular attention paid to the meaningful formulation of study outcomes, thus promoting dialogue between lecturers and students on study content, forms of organisation and methods. Formulated correctly learning outcomes, in turn, promote students' understanding and co-responsibility for their studies, self-assessment and understanding of the evaluation received. In the study process, lecturers use methods, forms of examination and assessment criteria that are appropriate to the aim of the study and the planned study outcomes. Before starting a course, lecturers do the following: find out how students understand the course title in relation to the study program, what they expect from the course, how they will apply the knowledge they have acquired in practice. After the course, the lecturers summarise the results of the final examination, analyse with the students the mistakes made, find out how the students would like to implement the course differently, if they have such wishes.

Students receive support and feedback from lecturers during their studies. The assessment criteria for grading are published in advance. The results of midterm examinations or seminars are discussed in the next class, pointing out weaknesses or praising those who have given full and creative answers that contribute to the relevant scientific field. Assessment provides an opportunity for students to demonstrate the extent to which they have achieved the expected learning outcomes.

Students have the opportunity to receive individual counselling from academic staff not only at the appointed times, but also at other times, by prior arrangement with the lecturer, which leads to the conclusion that lecturers' counselling is accessible to all students. Often, unclear issues are analysed during the lesson.

Following the principles of student-centred education, student mobility (recognition of study results) is promoted, and students engage in research and social activities in the community initiated by academic staff, thus gaining significant experience in applying what they have learned in their studies in practice. The study process is sufficiently flexible, which allows students to combine work/family life with studies.

As part of the internal quality assurance policy, study programmes are implemented in such a way that students are encouraged to take an active part in improving the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. It should be noted that there were no such cases during the reporting period. The results of student surveys are evaluated and taken into account in the improvement of the study process. Students are also willing to express their suggestions for the improvement of study programmes and process in discussions with lecturers and programme directors. For example, students suggested that the programme director should change some courses to ones they considered more relevant to labour protection. This was done in 2021, when 2 courses were changed to include "Fundamentals and Legal Aspects of Labour Law", "Environmental Sustainability in the Context of Labour protection", "Records Management in Labour protection" in the curriculum. Students' suggestions are also taken into account in order to ensure a better working environment during lectures and seminars, e.g. at the request of students, room 406 at 1 Jelgavas Street, where sound reflection was a disturbing factor, was changed to another room.

The study process uses methods that allow learners to evaluate and learn from each other. Extra-curricular activities are evaluated and recognised as an essential part of the study process.

The descriptions of study courses, internships and final theses are of high quality and in compliance with the requirements of the regulatory enactments, the content is up-to-date, mutually complementary, meets the program objectives and ensures the achievement of study results, as well as meets the needs of the field and scientific trends. The risks of the working environment in

different sectors of the economy are studied. Particular attention is paid to psychosocial risks at work and ergonomic risks and their impact on the working capacity of employees. This could be explained by the increasing introduction of modern technologies into the labour market, the increase in work intensity, as well as work in the context of the Covid 19 pandemic. The content of the professional Master's study programme complies with the Cabinet of Ministers Regulation No 305 of 13 June 2023 (Minutes No 32, § 29) Regulations on the State Standard for Professional Higher Education, as well as with the occupational standard of the 7th level "Senior Specialist in Labour Protection". The compliance of the study programme with the standards is demonstrated in Annexes 17.3. and 18.3.

The methods of study implementation and assessment contribute to the achievement of the objectives and results of the study courses and the program. These processes shall take into account the principles of student-centred teaching and learning. In this context, students may listen to audio lectures on the topic or watch video lectures where appropriate. In some cases, students can listen to a lecture remotely, with the prior agreement of the lecturer.

The results of student, employer, and graduate surveys are used to improve the quality of studies, e.g. some courses were changed according to students' wishes, which they considered more necessary to improve their education in this study programme. In this context, the following study courses have been developed and are being implemented: "Sustainable Development of the Environment in the Context of Labour protection" (replacing the previous study course "Chemistry and Environmental Protection"), " Records Management in Labour protection", "Fundamentals and Legal Aspects of Labour Law", which replaced the following study courses "Forensic Chemical Examination", "Radioecology and Dosimetry"; "Environmental Site Analysis", as graduates and employers indicated that the previous study courses had little added value or duplicated the content of other study courses.

Students of the study program have started to be interested and to prepare documents for inbound and outbound mobility opportunities (J. Lotkova), as the Erasmus+ program has given students the opportunity to do a traineeship or work placement abroad in order to improve their knowledge, skills and competences, which will be very important not only for the student in their future work, but also for their employers. So far, students have not taken advantage of this opportunity, as Master's students are all working, and mobility involves long absences and thus absenteeism. The Covid-19 pandemic also caused serious problems in Latvia and elsewhere in Europe, when international travel and other forms of travel were restricted. Each academic year, the program director, assoc. prof. Ž. Roja tells the students about the mobility opportunities and the benefits of an internship in a foreign organisation/company or university in occupational safety and health.

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 study program includes three consecutive internships. They are designed in accordance with

the rules of the LU. The internship regulations have been developed in accordance with the field of study and the study programme (approved at the Council meeting on 09.06.2023, Decision No 23-2/45). Study Program Director Ž. Roja has additionally developed for each placement an explanation of the work to be performed, which is used by students during the placement in the enterprise. This information is available to all students as it is posted in the e-studies under the respective internship. To achieve the desired result, students in the first practice internship the risks in the working environment, carry out an audit of the enterprise/organisation under study, familiarise themselves with the range of existing regulatory documents on labour protection in the organisation, find out how effectively they are applied in the organisation. Identify gaps in the labour protection system and measures to improve them. During the second internship, students carry out risk assessment and analysis in the company/organisation, in line with the knowledge acquired in the theoretical courses. During the third internship, students already apply the theoretical knowledge and contribute to the development of preventive and protective measures for employees; they learn to work with scientific literature, find the necessary solutions and are able to present the results to the management and employees of the company/organisation. After each placement, students complete a self-assessment and the relevant employer (the placement supervisor in the company) provides a written evaluation of the student's work, understanding, and contribution during the practice. This evaluation is useful for analysing the knowledge acquired by students in the relevant courses of study, as well as for assessing the employers' opinion on the relevance of the study program in the current context. The Director of the study programme shall, before the start of the internship, offer students possible placements and, if necessary, get involved and organise a placement for students. For example, the program director has recommended internship in the following companies: the University of Latvia under the supervision of a labour protection specialist, ORKLA SIA, Jēkabpils PMK, etc., where students learnt practical skills in occupational environment protection and expertise in accordance with the internship regulations and the description of the work to be performed. The Commission for the defence of the internship involves practitioners with long experience in labour protection, e.g. Ziedonis Liepiņš (competent institution in labour protection "Aina" Ltd.), Ričards Balnass (competent institution in labour protection "FN Serviss" Ltd.), etc.

Annex 29.3. contains a description of the organisation of the students' internships (Regulation on internship).

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 choice of the topic of the final thesis of the students corresponds to the current labour market issues, addressing local (e.g. risks of a particular organisation's working environment, current

labour protection issues in the relevant sector of the Latvian economy, etc.) and global (e.g. the role of ergonomics and human factors in modern work processes, LEAN and ergonomics approach in labour protection, etc.) problems and challenges. Each year, students choose topics according to current trends in labour protection and the current national situation in the field of labour protection. For example, during the Covid 19 pandemic, there were more studies on topics related to psycho-emotional stress and ergonomic risks when working remotely. Students also study the combined effects of classical work environment risks on employees in different sectors of the economy, choose modern methods of risk assessment of work environment, and are able to analyse and scientifically justify the results obtained. The selected topics correspond to the objectives of the study programme and ensure the achievement of the study results, as well as meet the needs of the sector and scientific trends. The risks of the working environment in different sectors of the economy are studied. Particular attention is paid to psychosocial and ergonomic risks at work and their impact on workers' ability to work. This could be explained by the increasing introduction of modern technologies in the labour market, the increase in work intensity, and working in the context of the Covid 19 pandemic. The process of analysis and evaluation of the final thesis topics allows concluding that the students are able to investigate and identify the most relevant areas related to ergonomics, labour protection, and risks in the working environment. Particular attention is paid to psychosocial and ergonomic risks at work and their impact on workers' ability to work. This could be explained by the increasing introduction of modern technologies in the labour market, the increase in work intensity, and working in the context of the Covid 19 pandemic. The process of analysis and evaluation of the final thesis topics allows concluding that the students are able to investigate and identify the most relevant areas related to ergonomics, labour protection and risks in the working environment. The choice of such topics shows that students understand occupational safety and health and are able to develop scientifically sound preventive and protective measures in the relevant sectors of the economy. Students choose topics related to ergonomics, such as how to prevent musculoskeletal disorders caused by prolonged sitting at a computer; how to provide an ergonomic workplace to reduce fatigue and excessive physical strain at work, or how to improve cognitive abilities at work. Students also choose topics related to occupational safety, such as how to prevent accidents in the workplace, how to use the right protective equipment to reduce the risk of accidents. Often, students explore the impact of workplace hazards, such as how to prevent common toxic contaminants, or how to prevent noise or vibration, which can have a negative impact on people's health and safety at work. They use a variety of research methods and tools such as literature analysis, interviews, surveys, observation, and experiments. These methods help students to obtain the necessary information on the chosen topic.

Some examples of research topics: *Work environment risks and preventive measures for employees in food packaging, (2020); The role of human factors in promoting the well-being of workers in the printing industry, (2021); Work environment risks specific to Latvian woodworking enterprises, (2022); Work environment and employee health promotion in beverage manufacturing enterprises, (2022); Psychosocial risks for employees in public administration and opportunities for their mitigation, (2019); Ergonomic load parameters and LEAN approach to risk reduction and implementation of preventive measures, (2021); Vibroacoustic and ergonomic risks for workers in polymer processing industry, (2019); Work environment risks for employees in cable and overhead power line assembly. Preventive measures (2016);* etc. This and other research is relevant to the needs of the sectors concerned, as well as scientific trends in ergonomics, occupational health and safety.

In the study program "WEPE", the assessments of Master's theses have varied during the reporting period, but, in general, they ranged from 7-9 points. 1 thesis was negatively evaluated in the reporting period (2018) because it did not meet the minimum requirements for a Master's thesis

and the student defended it again in the following academic year. In very rare cases, the Master's theses were marked between 4-6 points. For example, in 2022, a thesis entitled "Health promotion measures for retail workers" was awarded 4 points because the study did not include methods for assessing workplace risks and the thesis met the minimum requirements for a Master's thesis. In comparison, in 2021, the Master's thesis entitled 'Ergonomic risks and health promotion measures for healthcare workers' was awarded 10 points because the study included not only subjective but also objective methods for assessing workplace risks and developed scientifically sound proposals.

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.

For the implementation of the PMStP "WEPE", all the resources of the University and the Faculty of Chemistry are available. A detailed outline is presented in the Self-Evaluation Report of the Study Field "Internal Security and Civil Protection", Part II, Chapter 2.3, paragraphs 2.3.1-2.3.4. The description of the available resources in these chapters leads to the conclusion that they create the prerequisites for the implementation of the study program, including students' independent studies and research. The study base is regularly improved and supplemented with the most up-to-date information resources, according to the needs of academic staff and students.

The adequacy and relevance of the available resources and facilities to the needs of the study program are also reflected in the results of student and graduate surveys. Graduates of the study program gave a score of 5.3 (between rather agree and mostly agree) for the criterion "material and technical (rooms, computers and internet access) provision" in the 7-point system, and 5.6 for the criterion "useful resources offered by the LU library". Overall, the study environment is rated 5.8 points. Graduates mentioned that the study environment was conducive to learning, the literature, databases and other electronic resources necessary for studying were available in the LU library or information system. Graduates indicated that they were satisfied with the opportunity to get acquainted with and work with specialised computer programs during their studies, which could be used for research and application outside the University.

Having assessed the resources, information and material-technical base available to students, it can be concluded that they fully meet the conditions for the implementation of the Master's study program and ensure the achievement of the study program results by the students.

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).

Program income

To provide the necessary funds for the implementation of the PMStP "WEPE", the University uses the state budget grant from the Ministry of Education and Science and tuition fees. An overview of the (planned) distribution of students by type of study and annual income is presented in Table 3.3.3.1.

Table 3.3.3.1.

Number of students in the program and annual income

Study type	LV budget	LV paid	EU/EEA/SC* paid	Total	State subsidy	Fee for LV and EU/EEA/SC citizens	Annual income
	number	number	number	number	EUR	EUR	EUR
FT regular	27	13		40	4401	1800	142 227
Total				**40**			**142 227**

* EU/EEA/SC - European Union / European Economic Area / Swiss Confederation

Program costs

To estimate the amount of funds needed for financial support, the LU calculates the cost of study programs according to a methodology developed by the LU. It takes into account the costs of providing the study process as described in the section "Financial Support for the SF" and information on the study program plan, the teaching staff involved, the planned number of students, etc., thus ensuring the reliability of the forecasts.

Program costs for full-time on-site (FT on-site) studies in Latvian

For the calculation of the PMStP "WEPE" FT on-site program, the implementers use the data for the academic year 2022/2023 - number of students as of 01.10.2022, the study plan/norms and the structure of the academic staff involved. Based on these data, the total program income is EUR 142 227 and the annual costs are EUR 136 850 and their structure (percentage breakdown) is shown in Table 3.3.3.2.

Table 3.3.3.2.

Percentage breakdown of costs in the study program

Expenditure heading	% of total
Teaching staff costs	47%
General staff	5%
Other costs	
Infrastructure expenditure	20%
Assets and services	2%
Indirect costs	26%
TOTAL COSTS	**100 %**

Figure 3.3.3.1 visually (red line) presents the cost of the study program (vertical axis) depending on the number of students (horizontal axis) and the weighted average tuition fee (green line).

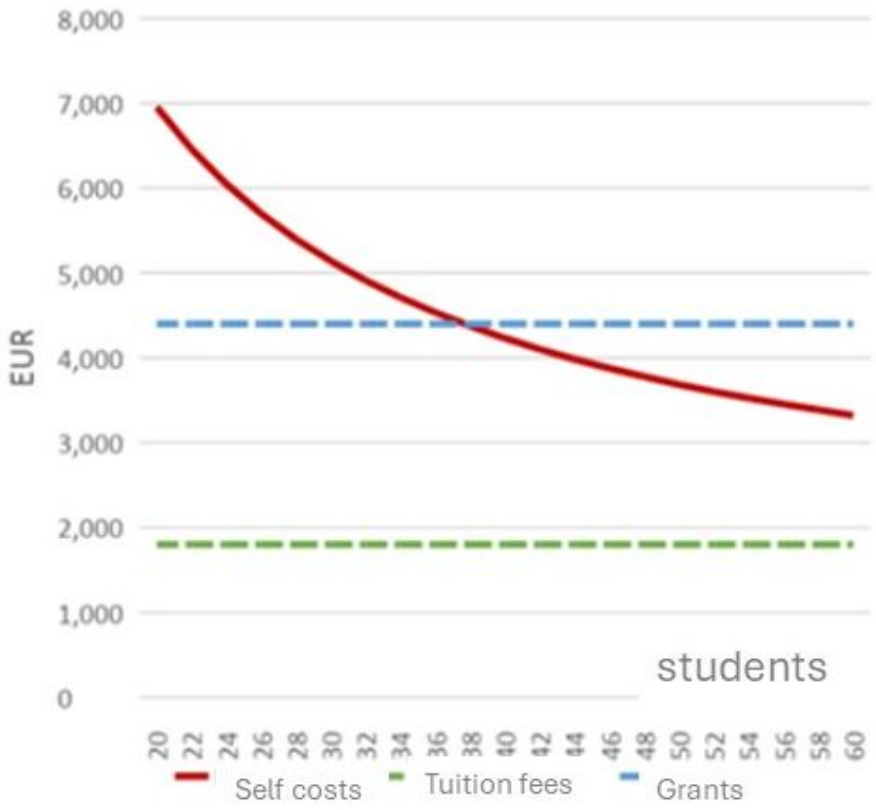

Figure 3.3.3.1. ***Cost of study program "WEPE" depending on the number of students***

Based on the cost structure and the total number of students of 40, the cost of the program per student is 4231 EUR per year. The minimum number of students for the program to be cost-effective is 37.

Summary of program revenue and costs

Table 3.3.3.3 summarises the projected number of students, program revenue, expenditure, outcome, and profitability (outcome to revenue, %) by all forms of realisation.

Table 3.3.3.3

Outcome of the program

Study type	Total	Annual income	Annual expenditure	Outcome	Profitability
	number	EUR	EUR	EUR	%
FT regular	40	142 227	136 850	4 577	*3.78%*
Total	**40**	**142 227**	**136 850**	**4 577**	***3.78%***

Conclusion:

The WEPE study program is cost-effective. Overall, the projected income exceeds expenditure and does not require support from other financial resources.

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 qualifications of the academic staff involved in the implementation of the study program are in line with the aims and objectives of the PMStP "WEPE". The study courses of the program are taught by the faculty members elected by the Faculty of Chemistry of the University of Latvia, as well as by the faculty members from other Universities (e.g. professor A. Podgornovs from RTU) or companies (e.g. lecturer D. Garais), as well as from other faculties of the University of Latvia (e.g. prof. H. Kaļķis, prof. A. Batraga). The selection of the teaching staff involved in the study program depends on their academic experience, qualifications, and scientific research activities. Of the academics involved in the program, 90% hold doctoral degrees, which indicates that the qualifications of the academic staff fully meet the requirements of the Master's degree program and ensure the necessary quality of the program.

The academic staff consists of full-time and part-time lecturers of the Faculty of Chemistry of the

University of Latvia. The total teaching load is 1636 hours, including lectures - 562 hours, seminars, laboratories, and practical works - 338 hours, of which 87.5% is covered by the teaching staff of the Faculty of Chemistry. The high qualification of the teaching staff is mainly due to the fact that basically all academic staff involved in the study program have a PhD degree. All lecturers of the Faculty of Chemistry of the LU participate in the implementation of bachelor, master, or doctoral programs. Organisational issues, including lesson planning and cooperation with students, are solved by the study program director, together with the Dean and Secretary of the Faculty of Chemistry, the head of the study field, who maintains contacts with the administrative structures of the University.

The composition of the academic staff is determined by the aim and objectives of the program, and its selection is approved by the Council of the Faculty of Chemistry. The suitability of the academic staff is determined by a number of aspects, including knowledge and professionalism in teaching courses, as well as research activity. Labour protection is a multidisciplinary field of science, which takes into account human factors, safety, health protection and promotion, quality and business management in its research.

All the lecturers in the program have relevant experience in carrying out such research, and their professional background is not in doubt (see CVs of academic staff). The program's lecturers also have relevant teaching experience, combined with active work in the LSC and National Research Programs. For example, assoc. prof. Ž. Roja was the first in Latvia to develop the principles of work environment risk assessment and from 2001 started to educate students at the highest level about work environment risks, worker health protection and load ergonomics, using the most popular risk assessment methods in the world and the European Union, which are described in several textbooks. Research by program lecturers
in the field of labor protection (more than 100 papers) has been published in scientific journals, rep orted at numerous international conferences and worldwide congresses in the field of labor protecti on and ergonomics (Maastricht, Las Vegas, Beijing, Miami, Crete, San Francisco, etc.), see the lecturer CVs.

In the 2020/2021 academic year, two lecturers (H. Kalķis and A. Podgornovs) have been elected to the positions of professor. All lecturers involved in the study program regularly (once a year) improve the content of study courses, update e-learning materials, and have successfully adapted to the rapid transition to distance learning by using MS TEAMS, ZOOM, E-learning environment and other opportunities for remote work, which are fully provided by the University of Latvia.

From 2018 onwards, regular peer observation of lecturers in the study programme "WEPE" has been initiated, which allows to evaluate the effectiveness of lecturers' development measures involved in the implementation of the study program (e.g., in the academic year 2021/2022, assoc. prof. Ž. Roja's, assist. prof. I Reinholds' lecture and seminar were visited by prof. H. Kaļķis. Assoc.prof. Ž. Roja visited lecturers K. Andža and M. Ābuls, prof. A. Batraga, prof. A. Podgornova, prof. H. Kalķis). The pace of peer observation was slightly hampered by the distance learning process in the academic year 2020/2021, but even in the distance mode, it took place according to plan. Peer observation is planned to continue on an ongoing basis. It should be noted that in the academic year 2019/2020 the Council of the Study Field "Internal Security and Civil Protection" was established, which developed the Study Field Development Strategy for 2020-2025 (attached as Annex 3 to the self-assessment report). The strategy stipulates that a meeting of the study program staff is held every academic year to ensure the interconnection of the study courses, which is regularly implemented.

Academic staff regularly participate in various training courses and professional conferences to improve their professional qualifications and study programs (see CVs of academic staff). For

example, Z.Roja, H.Kaļķis have mastered further education: University Didactics - Current theories and practice. Professional Development Education. Other training in other areas as well, keeping up-to-date with the labour market competences in occupational safety, ergonomics and health promotion at work. This is evidenced by CV entries and certificates. The lecturers have participated in several continuing training courses on collegial learning experiences organised by the Academic Department of the University, as evidenced by certificates (see CVs). They have also used or are currently using the opportunities offered by the University to improve their English language skills, e.g. Roja, J. Logins, A. Prikšāne, I. Reinholds, etc.

Assoc. prof. Ž. Roja is the Chairperson of the Board of the Latvian Ergonomics Society, and prof. H. Kaļķis is a member of its Board. H. Kalķis also represents the Latvian Business Efficiency Association and is a member of its Board (Board member until 2018). Both lecturers not only organise relevant seminars and events themselves, but are actively involved in their activities. Usually, students of the 1st and 2nd year of the study program "WEPE" are also invited to such events for exchange of experience. Other lecturers are also involved in professional associations, where they acquire up-to-date knowledge in their field and decide on the application of this knowledge in the study process.

To master several subjects (workload ergonomics, electrical safety, fire safety and safety of hazardous equipment), guest lecturers from other cooperating universities or institutions, including from abroad, are involved in the courses "Safety of Production Technologies", "Working Environment Expertise", "Ergonomics Fundamentals", "Quality Management Methods" and "Business Management", "Working Environment Expertise", for example, guest lecturers from:

- Ministry of Welfare (J. Geduša, Ms.sc.);
- Latvian Free Trade Union Confederation (K. Rācenājs, Ms.sc.; M. Pužulis, Ms.sc.);
- Riga Technical University (A. Podgornovs, professor);
- Latvian University of Life Sciences and Technologies (U. Karlsons, Ms.ing.sc., PhD student at LU);
- Riga Stradins University (I. Vanadziņš, Dr.med., professor);
- Latvian Academy of Sport Pedagogy (L. Čupriks, Dr.paed., professor);
- Latvian Employers' Confederation (O. Gavrilova, Ms.sc.; K. Vintiša, Ms.sc.);
- Latvian Ergonomics Society (D. Garais, Ms.sc.; A. Ruiss, Mg.sc.);
- Business Efficiency Association (G. Baltaisbrence, Ms.sc.);
- Latvian Association of Physiotherapists (I. Ikstens, Ms.sc.);
- LU Faculty of Biology (L. Plakane, Dr.biol., assoc. professor);
- President of the European Federation of Ergonomists Association, University of Marseille, France (Sylvain Leduc, professor);
- Leading architect of company "KATE" Ltd. (J. Mežuls, Mg.sc.);
- Latvia's State Forests (I. Viļķina, Mg.sc.);
- Young Scientists' Association (I. Krūmiņa, Mg.sc.);
- Stora Enso Packaging (J. Maņihina, Mg.sc.)
- etc.

It is not useful to analyse the ratio of academic and administrative staff to students, as the number of matriculated students can vary from year to year: the number of students in the field of study varied from 18 to 65 over the seven-year period.

The qualifications of the study programme staff are appropriate for the implementation of the study programme. The study program is implemented by the academic staff of the Faculty of Chemistry and other faculties: 3 professors, 2 associate professors, 4 assistant professors, 1 lecturer and hourly lecturers - specialists from state and private organizations, see Table 3.4.1.1. It should be noted that the study program is mostly implemented by the faculty members of the Faculty of

Chemistry elected for 6 years in accordance with the normative acts. Therefore, it can be concluded that the academic qualifications of the teaching staff (total number of professors and associate professors) are also sufficient for the implementation of an academic study program and the qualifications fully comply with Article 55 (1) of the "Law on Higher Education Institutions" of the Republic of Latvia.

Table 3.4.1.1

Teaching staff involved in the implementation of the PMStP "WEPE" study program (current data at the time of submission of the self-assessment report)

Degree Position	With Doctoral degree	With Master's degree	Total
Professors	3		**3**
Associated professors	2		**2**
Assist. professors	4		**4**
Lecturers		1	**1**
Hourly lecturers		5	**5**
Total	**9**	**6**	**15**

Policies for the renewal, training and development of academic staff shall take place in accordance with individual plans, which shall be approved by entering into a contract of employment with the relevant teaching staff of the LU Rector and Dean of the Faculty of Chemistry (FChem).

The teachers involved in the program participate in international projects, projects of the Latvian Council of Science and other institutions. In cooperation with scientists from Latvia (J. Zaļkalns - Rīga Stradiņš University) and other countries (A. Freivalds – Penn State University), several monographs have been produced in Latvia. Similarly, the program lecturers participate regularly in international conferences, carry out up-to-date research in the sector in common with doctoral students, publishing the results of research in internationally recognised publications indexed in SCOPUS and Web of Science databases, thus ensuring improvement of the content of study courses according to industry trends.

Overall, when assessing, the teachers involved in the implementation of the Master's study program shall ensure full achievement of the outcomes of the quality study program. This is evidenced by several considerations:

- the teaching staff involved in the implementation of the program are recognised experts in their field in Latvia and abroad, as evidenced by their published textbooks and scientific monographs (assoc.prof. Ž. Roja, prof. H. Kaļķis);
- the teaching staff involved in the implementation of the program are researchers recognised in Latvia and abroad, who publish in internationally peer-reviewed scientific journals and collections of articles (prof. H. Kaļķis, prof. A.Batraga, assoc. prof. Ž. Roja, assist.prof. I. Reinholds, assoc.prof. A.Prikšāne, prof. A. Vīksna, prof. A. Actiņš, etc.;
- the teaching staff involved in the implementation of the program are experts in their field, recognised in Latvia and abroad, participate in various projects, including national research programs (assoc.prof. Ž. Roja, prof. H. Kaļķis, I. Reinholds, etc.), international projects (prof.

A. Batraga, A. Prikšāne, etc.), applied research, etc. Several faculty members are also experts of the Latvian Council of Science in health sciences, social and engineering sciences, and chemistry (prof. A. Batraga, prof. H. Kaļķis, assoc.prof. Ž. Roja, assist. prof. I. Reinholds, etc.);
- several faculty members are active in professional associations and their leadership, e.g., assoc. prof. Ž. Roja. Prof. Roja is the head of the Latvian Ergonomics Society and is active in the Latvian Medical Association, the Latvian Society of Occupational Health and Occupational Diseases Physicians, prof. H. Kaļķis is a member of the Board of the Latvian Ergonomics Society, member and expert of the Latvian Business Association, assoc. prof. I. Reinholds is active in the Latvian Ergonomics Society etc.

The teaching staff, involved in the implementation of the study program, are continuously improving their professional and pedagogical qualifications. For example, they participate in LU continuing education programs, Open Minded courses, courses of other institutions, international conferences. Opportunities for professional development include academic (creative) leave, doctoral studies, lectures at foreign universities, participation in expert groups, etc.

Academic staff regularly participates in various training courses and professional conferences to improve their professional qualifications and study programs (see CVs of academic staff). Many factors influence the policy on staff recruitment, renewal, training and development:

- work with prospective PhD students (e.g. H. Kaļķis, I. Reinholds), which starts already during their Master's studies;
- motivation of teachers to obtain the relevant academic qualifications;
- the establishment of the new doctoral study program "Human Factor, Occupational Safety and Health", which provides an opportunity to attract doctoral students with the prospect of future employment in the implementation of the study program (currently 5 out of 7 doctoral students are graduates of this study programme and have started their careers as research assistants);
- the possibility of taking a creative leave to improve qualifications at universities abroad;
- a long-term prognosis for the implementation of staff renewal and recruitment plans linked to election deadlines.

The research activities of the academic staff of the Faculty of Chemistry of the University of Latvia involved in the implementation of the study program "WEPE" enable to update and successfully teach the relevant courses of the Program. This activity is based on the activities of the academic staff in a specific scientific field, which are implemented by participating in the development of projects funded by the Latvian Science Council (LSC), National Research Programmes (NRP), research projects of the LU, EU Structural Funds (ESF), International Cooperation Projects (ICP) and research contracts with various organisations (see Annex 10).

It should be noted that several lecturers of the academic staff (assoc. prof. Ž. Roja, prof. H. Kaļķis, prof. A. Vīksna, prof. A. Actiņš) were leaders and executors of several research projects (see CV in the Appendix). The research work of the academic staff is closely linked to the working environment and expertise. It should be noted that students of the study program are also actively involved in research processes and willingly participate in reporting research results at annual scientific conferences of the University (J. Andersons, A. Alksne, L. Berga, P. Freiberga, A. Roganovs, etc.). The research activities of the academic staff are shown in Table 3.4.1.2.

Table 3.4.1.2.

Research areas of academic staff involved in the program (2013-2022)

Name	Surname	Degree	Position	Research areas

Ženija	Roja	Dr.med.	Assoc. prof.	Occupational Health, Ergonomics, Health Promotion at Work, Nanocomposites - NRP sub-project leader
Henrijs	Kaļķis	Dr.sc.admin.	Prof.	Quality Management, Business Management, Work Environment Risk Assessment, Ergonomics. Participant of EU Fund projects..
Artūrs	Vīksna	Dr.chem.	Prof.	Environmental risks, analysis of environmental objects
Andris	Spricis	Dr.chem.	Lead. researcher	Environmental protection, Technological risks
Anda	Prikšāne	Dr.chem.	Assoc. prof.	Occupational Toxicology
Andris	Actiņš	Dr.chem.	Prof.	Forensic expertise
Jāzeps	Logins	Dr.chem.	Doc.	Information technologies
Andrejs	Podgornovs	Dr.ing.	Prof.	Electrical safety, fire safety, hazardous equipment, safety of production technology
Ingars	Reinholds	Dr.chem.	Assoc. prof.	Radiation safety, Occupational hazards, Nanocomposite materials - NRP sub-project participant
Anda	Batraga	Dr. oec.	Prof.	Marketing, record-keeping
Dagnis	Garais	Mg.sc.	Lecturer	Work environment, Occupational legislation, Occupational safety culture
Agnese	Arāja	Dr.chem.	Assist. prof.	Environmental protection

The results of research activities of the academic staff involved in the implementation of the study program are generally characterised by participation in more than 10 research projects of the LSC, 3 National Research Programmes, 12 EU Structural Fund projects, 19 international cooperation projects and 6 contracts with the total amount of funding exceeding EUR 500 000.

The academic staff involved in the program have published more than 250 scientific articles and more than 220 conference abstracts. The level of research work is also characterised by the LSC expert rights of the academic staff involved in the Program (prof. A. Viksna, prof. A. Actiņš, assoc.prof. Ž. Roja, prof. H. Kaļķis, asoc. prof. I. Reinholds), taking part in reviewing theses, various LSC, NRP and ESF projects (see CV). Assoc. prof. Ž. Roja, prof. H. Kaļķis, prof. A. Viksna are included

in the editorial board of international journals and collections of articles with high citation index (see CV).

The academic staff of the Faculty of Chemistry of the LU is also active in the preparation and publication of teaching methodological tools and textbooks relevant to the Programme courses. The following books are worth mentioning: Human Factors and Ergonomics at Work (Roja Ž. and Kalķis H. Riga, 2020, 294 p.), LEAN Organised Workplace: 6S Practical Tips (Skalberga I., Kalķis H., Roja Ž., 2022), "Ergonomics at Work with Digital Devices. Practical tips." (Roja Ž., Kalķis H., 2022); "Occupational Health and Risks at Work" (Kalķis V., Roja Ž., Kalķis H., Riga, 2015, 534 p., scientific monograph - approved at the meeting of the Council of the Faculty of Economics and Management of the University of Latvia, protocol No. 52 (19 May 2015)); "Stress and violence at work. What to do?" (Roja Ž., Roja I., Kaļķis H., Riga, 2016, p. 94); "Business Ergonomics Management"- scientific monograph (H. Kaļķis, Riga, 2014, p. 155); approved at the SC meeting of Riga Stradiņš University, 2013; Methods of Work Environment Risk Assessment (V. Kalķis, co-authors. Z. Roja, H. Kalķis. Latvian Education Foundation, 2008, 242 p.); Fundamentals of Ergonomics (Ž. Roja, SIA Drukātava, 2008, 195 p.); "Risk Factors of the Working Environment and Workers' Health Protection" (V. Kalķis and Ž. Roja ed., Riga, Elpa-2, 2001, 500 p.); "Risks of the Working Environment" (V. Kalķis, Ž. Roja, Riga, LU, 2007, 76 p.); "Risk Assessment of the Working Environment" (V. Kalķis, I. Kristiņš, Ž. Roja, Riga, LU, 2003, 101 p.); "Stress and violence at work" (I. Roja, Ž. Roja, H. Kaļķis, Riga, 2006, 50 pp.); "Work-related musculoskeletal and connective tissue disorders. Ergonomic solutions." (Ž Roja, I. Roja, H. Kaļķis. 2016, 18 p.); "LEAN solutions for more efficient business" (Babris S., Kaļķis H., Mūrnieks J., Piekuss U. Riga: SIA "Madris", 2016, 190 p. (ISBN: 978-9984-31-555-3) - collective monograph (Approved by the Council of the Latvian Ergonomics Society (Scientific Institution No 464112), Protocol No 2/2016 (30 August 2016).

Publications and their compliance with the qualification criteria can be consulted in the LUIS system and in the relevant annexes of the self-assessment report.

Details of the relevance of the qualifications of the teaching staff can be found in the CVs of the teaching staff and in the summarised information on publications and other activities.

Taking into account the above, it can be stated that the teaching staff involved in the implementation of the study program enables the full achievement of the aim and planned results of the study programme, providing both qualitative theoretical knowledge and research skills in the field of labour protection Sciences, as well as practical training that enables successful involvement in the solution of problems in the field.

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 practical implementation of the study program takes place at the Faculty of Chemistry of the University of Latvia. It is provided by the academic staff of the Faculty, who have long-term experience in study work and whose research directions correspond to the scientific directions of the taught study courses. The structure of the academic staff ensures a high quality of academic education. Of the academic staff, 90% hold doctoral degrees in chemistry, medicine, economics, management science, or doctoral degrees in related fields. Lecturers and guest lecturers - practitioners without a PhD - provide practical classes, seminars for students of the study program. Representatives of other faculties also participate in the implementation of the program: the Faculty of Biology, the Faculty of Business Administration and Economics, etc. The qualifications of

the teaching staff fully meet the requirements of the study program, the goal, and objectives of the program.

Compared to the 2012/13 academic year the number of lecturers has remained unchanged. Changes took place in the reporting period by attracting experts and specialists in the field of study for implementation of some study courses as guest lecturers (e.g., assoc.prof. L. Plakane; the leading researcher G.Ķizāne, assoc.prof. E. Pajuste, etc.). Such changes had a positive impact on the implementation of the study program in terms of the use of a unified methodological approach in studies and their organization, while at the same time the involvement of practitioners in the teaching process remained unchanged. In recent years, as lecturers and practitioners in the study program were involved Romāns Putāns (Doctor of Science, Latvian Ergonomics Society, expert), Sandis Babris (factory director, SIA "Brabantia Latvia"), Agnis Beiers (Swenk, Latvia), Dagnis Garais (industry expert, Ventspils Oil Terminal representative), Andis Zanders (leading expert on personal protective equipment in Latvia, Ltd. Grif), Jevgēnijs Oboļēvičs (Head of the Labour protection Association), etc. Several guest lectures were given on the following topics: Accident Investigation at Work, Safety Culture, Hazardous Equipment, Personal Protective Equipment at Work, Work in Confined Spaces, Methodology of Scientific Work in Master's Studies. Practical classes were conducted at Ltd Brabantia Latvia, Stora Enso, Ltd Kate and Swenk Latvia, etc.

The academic staff selection policy is applied due to the need to involve not only LU lecturers, but also guest lecturers - leading Latvian experts - in the program implementation, in order to cover all possible issues related to work and environmental expertise. The main criteria for selecting guest speakers are competence, knowledge, practical experience, and the ability to transfer their knowledge to others. The FChem policy is that the continued attraction of highly qualified specialists or academics on a part-time basis from local institutions and from abroad for the implementation of the Program should be supported, provided that these specialists not only give lectures but are also prepared to contribute to the development of the Faculty's scientific and academic work.

The renewal, training and development policy relies on those faculty members who are likely to add to the number of study program implementers, including academic staff, in the near future. These are basically Masters and PhD students from the Faculty of Chemistry, as well as the Faculty of Economics and Management (I. Krūmiņa, K. Vintiša, G. Baltaisbrence, P. Freiberga, S. Štelle, D. Madelāne, A. Saulīte, U. Karlsons, A. Rogonov, J. Pankova, etc.). These Masters and PhD students have already had the opportunity to work on European programs/projects and LSC research projects, as well as to give lectures as part of their study program. They therefore have sufficient knowledge to become lecturers in the Professional Masters program.

In general, it can be concluded that the composition and changes of the teaching staff involved in the **PMStP "WEPE" are positively evaluated, thus ensuring a high quality of education and are appropriate for the achievement of the study courses and the overall study results of the program. This is also reflected in the feedback from students and graduates**.

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).

Faculty collaboration is important to ensure that the program's faculty members can jointly develop and implement the intended study plan that meets the requirements of the labour protection industry and profession standard, as well as the needs of the students. The faculty members of the PMStP "WEPE" study program regularly collaborate and adjust the course content as necessary to ensure that all current aspects related to work environment protection and expertise are included in the study program.

Cooperation between the teaching staff involved in the implementation of the PMStP "WEPE" is continuous, for example, all lecturers of the study program are invited to the meetings of the Board of the "Internal Security and Civil Defence" course on a regular basis - twice a year - and issues related to the study and methodological work are discussed. This ensures the interconnection of study courses and prevents overlaps in the content of study courses. The content of the study program and individual study courses is discussed at the meetings of the study field council.

In order to facilitate the cooperation of the FChem teaching staff in the field of study "Internal Security and Civil Defence", the head of the field of study together with the directors of the study programs organises monthly meetings, including information on methodological work and on topical issues related to the improvement of the content of study courses, organisation of lectures and seminars, development of e-studies, inclusion of the latest literature in study courses. Meetings are held in person or on the MS-Teams platform.

Recently, the issue of improving course descriptions, content and materials in the e-learning environment has been raised. The Department of Information Technologies of the University of Latvia regularly offers e-learning training seminars for lecturers "Improvements in the e-learning environment or Moodle". Several discussions on these issues were held within the Faculty of

Chemistry to enable the program lecturers to make full use of e-learning facilities in their courses.

Cooperation of teaching staff is also manifested in the visits of classes in order to improve the study process and increase the quality of classes (e.g., assoc. prof. Ž. Roja, assist. prof. I. Reinholds' lecture and seminar were visited by prof. H. Kalķis, and assoc.prof. Ž. Roja was visited by prof. A. Batrags, prof. A. Podgornov, assist. prof. M. Abuls, prof. H. Kalkis). Regular peer observation of the lectures of the teaching staff also takes place during the election process for academic positions. During the mutual attendance of classes, experiences are exchanged and teaching methods are discussed. This practice allows enriching the teaching methods and styles of each member of staff.

The evaluation of the PMStP "WEPE" program's faculty cooperation and the student-faculty ratio are important factors that can influence the quality and effectiveness of the study program. As of the moment of preparation of the self-assessment report (01.01.2023) 33 students are registered in the LU information system in the Master's study program "WEPE" (1st year - 18 students, 2nd year - 15 students), which constitutes a faculty-student ratio of 10 / 33 = 30.3%. This ratio is considered very good and appropriate for Master's level studies, as there is on average one lecturer for every 3 students. This allows concluding that the study process provides an individual approach to each student and ensures that students understand and master all aspects of the study program.

In general, it can be concluded that **the cooperation between the teaching staff involved in the study program is good and that a mechanism has been developed within the study field to facilitate their cooperation.**

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	ANNEX_15_3_SAMPLE DIPLOMA TEMPLATE.docx	15_3_pielikums_Par studiju programmas apgūšanu izsniedzamā diploma un tā pielikumu paraugs_LV.docx
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_16_3_Statistical data on students.docx	16_3_pielikums_Statistika par studējošajiem pārskata periodā.docx
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_17_3_Compliance of the professional with the national education standard.docx	17_3_pielikums_Studiju programmas atbilstība valsts izglītības standartam.docx
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_18_3_Compliance of the study program with the professional standard .docx	18_3_pielikums_Studiju programmā iegūstamās kvalifikācijas atbilstību profesijas standartam vai profesionālās kvalifikācijas prasībām.docx
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	30_3_EN_PMSTP_DVAE.docx	30_3_LV_PMSTP_DVAE.docx
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	ANNEX_20_3_Mapping of study courses.xlsx	20_3_pielikums_Studiju kursu kartējums studiju programmas studiju rezultātu sasniegšanai.xlsx
The curriculum of the study programme (for each type and form of the implementation of the study programme)	ANNEX_21_3_Full-time study plan of the study program .docx	21_3_Pielikums_Studiju programmas plāns_LV.docx
Descriptions of the study courses/ modules	ANNEX_22_3_Study course description.docx	22_3_Pielikums_Studiju kursu apraksti_LV.docx
Description of the organisation of the internship of the students (if applicable)	ANNEX_29_3_INTERNSHIP REGULATIONS.pdf	29_3_Pielikums_Studējošo prakses organizācijas apraksts.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)		

Labour Protection (41862)

Study field	*Internal Security and Civil Protection*
ProcedureStudyProgram.Name	*Labour Protection*
Education classification code	*41862*
Type of the study programme	*First level professional higher education study programme*
Name of the study programme director	*Ingars*
Surname of the study programme director	*Reinholds*
E-mail of the study programme director	*ingars.reinholds@lu.lv*
Title of the study programme director	*asociētais profesors, Dr. ķīm.*
Phone of the study programme director	*+371 26802448*
Goal of the study programme	*To prepare qualified specialists in labour protection who can take part in ensuring the protection of the work environment in commercial companies, state or municipal institutions or public organisations by organising the system of working environment protection in accordance with the requirements of external regulatory enactments, modern labour market trends and the latest scientific knowledge.*
Tasks of the study programme	*1. To provide an opportunity to study the Programme by acquiring knowledge and developing skills and competences in labour protection and expertise in accordance with the requirements of external regulatory enactments, by enhancing the professional qualification of labour protection specialist, which provides knowledge and skills in accordance with the requirements of the labour standard "Labour protection specialist";* *2. to provide students in the Program with the opportunity to acquire in-depth knowledge and develop professional competences in the field of labour protection in order to develop and consolidate skills and competences for the implementation of national occupational safety and health policy and for the organisation and management of internal monitoring of the working environment;* *3. to improve students' skills and competences in the use of information technology tools to ensure the functionality of the occupational health and safety system in the company, to acquire, create and share digital content responsibly and safely in practice;* *4. to develop high professional ethics, pedagogical and psychological skills in students for working with workers, organising the implementation of quality labour protection measures in enterprises;* *5. to motivate students for further education, improvement of professional qualifications and participation in scientific activities.*

Results of the study programme	*Knowledge:* *1. is familiar with modern approaches to the organisation and management of labour protection systems;* *2. selects, justifies and applies the norms and requirements of the regulatory enactments and standards governing labour protection;* *3. identifies and explains the risk factors in the working environment and their impact on the safety and health of workers.* *Skills:* *4. establishes, implements and maintains a coherent and comprehensive management system for labour protection;* *5. formulates and applies in practice the possibilities of optimal solution of problems of protection of the working environment, implementing the latest knowledge on preventive and protective measures, collective and individual means of work protection;* *6. plans and organises the education of workers in the undertaking on the importance of safe working practices in reducing the incidence and severity of labour diseases and accidents.* *Competence* *7. organises internal monitoring and risk assessment of the working environment protection system in accordance with the duties of the labour protection specialist;* *8. plans and selects economically and practically sound measures to improve the safety and labour health of workers in the workplace;* *9. analyses the risks of the working environment and argues for safe working methods, preventive measures to mitigate the risks of the working environment.*
Final examination upon the completion of the study programme	*Qualification paper*

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)	*Secondary educations*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*-*
Qualification to be obtained (in english)	*Labor protection specialist*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, CENTRA RAJONS, RĪGA, LV-1050

Part time studies - 2 years, 3 months - latvian

Study type and form	*Part time studies*

Duration in full years	*2*
Duration in month	*3*
Language	*latvian*
Amount (CP)	*80*
Admission requirements (in English)	*Secondary educations*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*-*
Qualification to be obtained (in english)	*Labor protection specialist*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, 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 short-cycle (1st level) study program of professional higher education "Labour Protection" (41862) is implemented within the study field "Internal Security and Civil Protection". During the reporting period, no changes have been made to the parameters of the study program.

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 title of the short-cycle professional higher education StP “LP” clearly and unequivocally indicates that the program belongs to the disciplines of civil protection and internal security and is thus closely linked to the professional qualification obtained as a result of the acquisition of the study program. The name is related to the purpose of the program, emphasizing the work protection orientation specified in the program.

The title of the short-cycle professional higher education StP “LP” is identified by the code 41862 of the study program in accordance with Cabinet Regulation No. 322 “Regulations regarding Classification of Education of Latvia”, which reflects the content of this study program, because classification with code 862 corresponds to the group of educational programs “Occupational safety and health”, while code 41 corresponds to vocational higher education of the short cycle (1st level).

Therefore, the graduates of the program are not awarded an academic degree, but the qualification of a professional labor protection specialist is awarded.

The professional qualification of the short-cycle professional higher education StP “LP” fully complies with the requirements of the 5th (so far 4th) qualification level profession standard PS 179 “Labour protection specialist” (standard aprooved on 13.10.2021) classification (code of the profession classifier of the Republic of Latvia 3119).

According to the Chapter 1, Article 1 of the Labor Protection Law, a labor protection specialist is an employee whose duty it is to organize and control labor protection measures and to carry out internal monitoring of the working environment, and who has been trained in accordance with the procedures established by the Cabinet of Ministers.

After acquisition of the short-cycle professional higher education StP “LP”, its graduates have

acquired the necessary theoretical and practical knowledge of labour protection, which has been strengthened during the internship and transformed into specialist skills. The title of the study program and the content thereof indicate modern acquisition of knowledge, skills, and competences in a specific sector, facilitating the preparation of professional labour protection specialists, in accordance with the current developments in the protection of the working environment in Latvia and Europe.

The admission requirements for the study program is "secondary education" and the admission conditions are available on the LU website:

https://www.lu.lv/en/admission/admission-procedure/ .

The scope of the study short-cycle professional higher education StP “LP”, duration of implementation, parts of the study program and their scope, compulsory content, professional qualification, basic principles and procedures of evaluation and the scope of study practice, principles of implementation, etc. are regulated by the Cabinet of Ministers Regulation of 13 June 2023 No 305 "Regulations on the State Standard of Professional Higher Education" and comply with the requirements set out in the Regulations.

Scope of the Short-cycle professional higher education StP is 80 CP (120 ECTS), divided into general studies (20 CP (30 ECTS)), sector studies (36 CP (54 ECTS)), placement (16 CP (4 ECTS)) and qualification work (8 CP (12 ECTS)).

Ths study forms and duration of implementation are :

- full-time regular studies: 2 years (4 semesters)

- part-time regular studies: 2 years and 3 months (5 semesters).

The content of the study program is fully compliant with the labour standard PS 179 “Labour protection specialist” (standard aprooved on 13.10.2021). It is fully subordinate to the achievement of the aim and objectives of the StP, as it includes general education study courses and specific training study courses, which ensure the conformity of knowledge, skills and competences with the acquired professional qualification and the national standard.

The content of the StP is competitive and relevant to the requirements of today's labour market.

The director and lecturers of the study program follow the changes in the labour market and supplement the study program accordingly, plan its improvement in connection with the priorities of the Latvian National Development Plan and the Latvian Sustainable Development Strategy until 2030: "economic growth" and "human security", as well as the priorities of the Latvian Smart Specialization Strategy "modern education", "knowledge base", "productive innovation system", "polycentric development", which are aimed at promoting the long-term development of the economic sectors of the Republic of Latvia. The scope of the study program is in line with the first priority of the European Commission Statement "New Priorities for European Cooperation in Education and Training" on building relevant and high-quality skills and competences, focusing on learning outcomes, employment, and innovation in today's working environment.

3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.

Short-cycle professional higher education StP “LP” is implemented in the Field of Study "Internal

Security and Civil Defence", which currently includes the following study programs:

- Professional bachelor's study program "Labour Health and Safety at Work";
- Master's study program "Working Environment Protection and Expertise";
- Doctoral program "Human Factor, Labour Safety and Health".

The study programme is accredited for:

- full-time regular studies ,

- part-time regular studies.

Currently, only part-time regular students are enrolled in the programme. There are no full-time regular students stydiing at this moment.

Currently only part-time students are studying.

The curriculum ensures that the labour health and safety professionals trained in the result of the Program have a broad perspective on labour health and safety processes. The Study Program focuses on labour hazards in various industries, risk assessment methods, and those labour hazards that are yet to emerge in the workplace. Graduates will be able to participate in the activities of new companies and to perform duties in companies, ensuring full supervision of risks in the working environment. At the same time, the knowledge acquired within the Study Program about the human body, its characteristics and its ability to adapt to the working environment, enables graduates to create a working environment that is suitable and safe for the employee's needs, ensuring the long-term preservation of the employee's working capacity.

The Short-cycle professional higher education StP “LP” is fully relevant to labour market demand. In this regard, scientific institutes, ministries (RSU Institute of Labour Safety and Environmental Health, Ministry of Welfare, Ministry of Health, Ministry of Environmental Protection and Regional Development, labour and environmental administration institutions (State Labour Inspectorate, State Environmental Service, State Environmental Bureau, Radiation Safety Centre, etc.), public organisations (Latvian Association of Labour Protection Specialists, Latvian Ergonomics Society, Latvian Employers Confederation, Latvian Free Trade Union Confederation) have been identified.

According to the institutions and information centres identified (Lursoft, etc.), the labour market is still not saturated. Employers are also interested in graduates, as shown by the fact that most students in higher professional education are paid by the employer, given that the first-level part-time Study Program "Labour Protection" does not provide budget places for students.

The study program meets the demand of the labour market, as evidenced by the stable number of graduates since 2017, with the majority of students working in both public administration and private companies, thus their studies have been accepted by the management of the companies.

It should be noted that between 2017 and 2021, students have had training practices in various national and local companies. Therefore, the feedback of the companies' representatives on the students' practice performance has been analysed. In all cases, positive evaluations have been obtained regarding the students' performance and practical experience. In all surveys, the evaluation of the LU field of study and the corresponding program is positive, indicating that students have contributed to the improvement of the labour protection system in enterprises.

Some of the companies whose representatives have positively evaluated student practical placements in 2017-2021 included the University of Latvia (only a small percentage of students have developed practical placements in university departments, contributing to the development of worker surveys, data analysis and planning of preventive measures, improvement of labour protection systems), various companies: Ltd. "MittHus", Ltd. "WOLTEC, Ltd. "JELD-WEN Latvija, AS

“G4S LATVIA”, Ltd. “FN-SERVISS”, AS “Grindeks”, AS ”Valmiera Glass Fibre”, AS „Conexus Baltic Grid”, AS “Kesko Senukai Latvia”, VAS “RoadTrafficSafetyDirectorate”,AS“OlainesChemicalplantBIOLARS”,RigaTechnicalCollege,municipalitiesofdifferent regions.

Students who have completed their studies have also successfully produced qualification theses in these companies, which have been appreciated by company managers and labour protection representatives who have supervised the students. The students' direct employers have appreciated the graduates' preparation and professional development after completing the Study Program and obtaining the qualification of labour protection specialist.

Summarising the evaluation of the students' qualification work by the companies' representatives, the feedback underlined that the students showed a high level of responsibility and demonstrated a professional readiness to be involved in the maintenance of the company's labour protection system. This is based on the students' ability to demonstrate an understanding of labour protection legislation and the practical aspects of establishing and maintaining a labour protection system. Employers' representatives have pointed to the training of young labour protection specialists who are able to tackle complex occupational safety issues independently, by showing initiative and offering practical solutions, including the application of a variety of risk assessment methods in practice. Many of the feedback reviews also point to the implementation of practical recommendations in the work of enterprises and assess the long-term relevance of these recommendations. It is important to note that studies and research on labour protection and expertise are in line with the priority directions of Latvian science development (Cabinet of Ministers' Order No 746 of 13 December 2017 "On priority directions of science for 2018-2021"; Cabinet of Ministers' Order No 246 of 14 April 2021 "Guidelines for science, technology development and innovation for 2021-2027"). In accordance with Article 13 (2) (3) and Article 34 (4) of the Law on Scientific Activity, the following priority directions in science have been identified, which are closely related to the outcomes of the OP study program, e.g, Public health (including health and well-being, human health, health care, public well-being and health improvement); knowledge culture and innovation for economic sustainability (including innovation for economic growth and sustainable development, knowledge and technology transfer, internationalisation, social security and quality of life, building social capital); demography, sport, open and inclusive society, well-being and social security; national and public security and defence.

"OP'Compared to the Bachelor and Master programs, there is a stronger focus on professional training in line with the Labour Protection Specialist standard.

The study program responds to a number of education priorities set by the European Commission: an economy that works for people; protecting the European way of life; a stronger Europe in the world; a Europe fit for the digital age. The scope of this study program is in line with the first priority of the European Commission Communication "New Priorities for European Cooperation in Education and Training" on building relevant and high quality skills and competences, focusing on learning outcomes, employability, innovation, and civic engagement.

Questionnaires are planned and a wider survey of employers will be conducted from 2023 onwards to assess employers' satisfaction with students' experience and knowledge.

The analysis of the results of graduate surveys is of key importance as it provides data on the overall usefulness of the study program and recommendations for further improvement of the study process.

It is worth noting that many of the graduates continue to work in companies and public institutions, where they developed their practice projects and their qualification theses. For example, recent

graduates have developed their theses and continue to work in the profession in companies of national importance, municipalities and educational institutions. Examples Ltd. "Regula Baltija", A/S "Conexus Baltic Grid", Ltd. "Polipaks", Ltd. "Environmental Consulting Bureau", Ranka Parish Administration, Riga Technical College. Most of the graduates work in manufacturing companies, where employees are exposed to a wide range of work environment risks, thus the quality of the study program can be judged from the questionnaires of the last year students.

The evaluation of the graduate questionnaires as well as the evaluation of the first year students is presented in Annex 5.

The main positive factor acknowledged by the majority of students in their personal comments is that the short-cycle higher professional education StP "LP" is the only programme that provides a first-level study programme with the qualification of Labour Health and Safety Specialist, which allows the majority of workers to obtain a professional qualification to perform the duties required in the workplace, and many of the graduates also plan to continue their studies in the near future at a higher level in a bachelor program.

The majority of students were satisfied with the study load, with around a third indicating that an increase in the proportion of practical classes would be advisable. The study process in recent years, despite the various innovative solutions of the LU, was challenging for both students and lecturers, as the restrictions of Covid-19 hindered the organisation of many practical training seminars in companies compared to the pre-Covid-19 period and it is planned that with the next study period it will be possible to increase the share of practical seminars.

Analysis of the graduates' survey data shows that graduates are on average more than 80% satisfied with the overall content of the program and successfully apply the acquired knowledge to improve the working and environmental conditions of a commercial company or organisation. The majority of graduates started planning their professional development during their studies and also believe that the study program prepared them for the labour market and plan to work in the future in line with their education. The graduates' feedback emphasises that the higher professional education program is very necessary and relevant, as Latvia's accession to the European Union has significantly increased the requirements in the field of labour protection, but the number of competent specialists in the field of labour protection is insufficient. This is confirmed by the steady annual number of students enrolled in the Program.

The most important recommendation of the graduates, related to the rationale for the implementation of the study program, was the need to continue guest lectures with the participation of practitioners in occupational safety and health and to promote the organisation of practical training seminars in industrial enterprises. The main comments of the graduates on the study program were the following: the study process is well organised, interesting guest lecturers are available; the study schedule was suitable for combining studies with work; the theoretical knowledge acquired in the study program helped to acquire practical skills more quickly, in line with the company's needs, when starting to work in the company.

Overall, the data collected in the surveys show that the short-cycle professional higher education StP "LP" is fit for purpose, fulfils its function and is sustainable as it provides the labour market with labour protection specialists who have acquired professional knowledge and skills.

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.

Compared to other study programs in the field of study "Internal Security and Civil Defence", the Short-cycle professional higher education program "LP" has been implemented at the University of Latvia since 2017 after its takeover in 2017 from the Riga Pedagogical and Educational Management Academy (RPEMA).

Currently, he Short-cycle professional higher education program "LP" is realized only in a part-time face-to-face format and there are nofull-time students.

In 2017, the first intake of students for both Riga and Aluksne branch started, providing 19 new graduates in 2017/2018, who enrolled in Riga in the 5th semester to work on their final projects - qualification papers and obtain the qualification of labour protection specialist.

From the 2017/2018 academic year to 2022/2023, the program has generally seen stable student interest.

Number of students matriculated in the first year of study in the period from 2017 until 2023 ranged in average about 19 students. Only in the period 2022/2023 the lowest number of matriculated students was observed (6 students, of which one student withdrew in the first semester) and in the 222/2023 period an increase was observed - 13 students. Given that a similarly lower level of student interest was also observed in the Bachelor program " Occupational Health and Safety at Work", this can be attributed to the lack of budget places in the study programs and possible economic factors in recent years in the context of Covid-19 and the economic crisis in the context of geopolitical factors in Europe.

Taking into account the number of students enrolled in the 2022/2023 academic year additional activities have been carried out by the program director and the teaching staff by participating in various events organised by the University of Latvia, promoting the interest of school youth in studying the Study Program "Labour Protection", and facilitating the attraction of applicants from secondary schools in the next semester of study. For example, in the period 2022/2023 the Program Director and lecturers participated in the "8 Steps to Chemistry" series of activities organised by the School of Young Chemists of the Faculty of Chemistry of the University of Latvia, promoting the study program to 12th grade students. The event took place on the Zoom platform and was attended by more than 100 students, from whom positive feedback on study opportunities was received. Another event was also held at the LUniverss Festival for students, which took place on 3 and 4 March 2023 at the Academic Centre of the University of Latvia. Its aim was promote that in the coming academic years, when the geopolitical and economic situation will have stabilised, the total number of students in the program would increase again.

Analysing the drop-out rate by year (see Annex 16.1), it can be seen that the most significant reason for dropping out is self-determined (from 1 to 7 students), which most often indicates that students lack the ability to finance their studies or are unable to combine their studies with work. At the same time, there is a balance of students planning to defend their qualifications, with at least 10 new labour protection specialists from the program defended their qualifications by autumn 2023.

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.

short-cycle professional higher education StP "LP" is implemented within the study field "Internal Security and Civil Defence" and is aimed at training of high level professional specialists in labour protection with knowledge, skills and competence in ergonomics, occupational safety, work environment expertise, work environment risk assessment, development of protective and preventive measures. After graduation, students can complement their competences by continuing their studies in the Bachelor's program to obtain the qualification of occupational safety engineer. The study program is able to provide the competitive knowledge required for all competent labour protection specialists in today's competitive work environment in any sector of the economy. The study program offers courses in labour protection in accordance with the requirements of the labour standard and international practice, as well as scientific developments in the field of labour protection.

As businesses grow, labour protection professionals with a wide range of knowledge, skills and competences are increasingly in demand, as today's changing market conditions are also bringing about dramatic changes in companies. Recent scientific trends in labour protection focus on reducing work-related musculoskeletal disorders, mitigating the effects of psychosocial risks at work and preventing accidents at work. Therefore, in the study of occupational safety methods, students have also explored more extensively different semi-quantitative and quantitative methods for analysing ergonomic risks and assessing their association with various other undesirable factors in the working environment. This knowledge is also applied in the students' final theses. Working in hazardous and dangerous working conditions is also a topical issue today. Therefore, organisations/companies need to think about a healthy, safe and fair working environment for all employees, reducing physical strain, reducing repetitive movements in work processes, avoiding harmful and hazardous working conditions to prevent stress/strain, preventing accidents at work and preserving long-term fitness for work. The content of the courses/modules of this study program is thus regularly updated in line with the trends in industry, the labour market and scientific developments.

The content of the program complies with the Cabinet of Ministers Regulation No 305 of 13 June 2023 "Regulations on the State Standard for Vocational Higher Education" and meets the requirements set out in the Regulation.

In accordance with the regulations on the National Standard for Vocational Higher Education, the

program includes 20 credits of general education courses. Of the professional specialisation courses, 36 credits are offered, of which 34CP are included in the compulsory part of the program and 2CP in the restricted elective part. The practice is divided into 2 parts for a total of 16CP and the qualification work is 8CP (see Annex 17.1).

Students can fulfil the objectives of the Short-cycle professional higher education StP "LP" by studying the following courses:

- study courses that provide knowledge and practical skills on workplace risk factors in different sectors, risk identification, assessment methods and protective measures;
- study courses that provide competences and knowledge on the quality management system in the enterprise, sustainable development and the environment, and the basic principles of the legal system,
- knowledge and practical skills about the risk factors of the work environment in various industries, methods of risk determination, assessment and protection measures;
- study courses that provide knowledge and practical skills in chemical safety, electrical safety, fire safety, air pollution and its control;
- study courses covering basic labour medicine, first aid, civil protection, occupational health, and health promotion at work;
- study courses in ergonomics and psychology of work, basic pedagogy;
- study courses, giving knowledge of English for occupational safety and health professionals, basic record-keeping principles;
- study courses that provide knowledge of statistical data processing and evaluation, and the use of information technology;
- study courses that provide knowledge of work environment protection and chemical toxicology;
- study courses that allow students to learn the basics of macroeconomics, business management and entrepreneurship, including quality management methods, personnel management and business management;
- practical skills through internships in the specialty, qualification practices and independent development of qualification work in commercial companies, state or municipal institutions and public organisations.

Students develop their practical skills and competences by working under the supervision of specialists in training placements and, at the end, by producing a qualification thesis, which includes a risk analysis of a real working environment in a company or institution, designing a safe working environment and drawing up prevention plans, as well as the practical application of management knowledge and competences.

Annex 17.1 describes the compliance of the short-cycle professional higher education StP "LP" with the State Standard for Professional Higher Education in accordance with the requirements of the Cabinet of Ministers Regulation No 305 of 13 June 2023 "Regulations on the State Standard for Professional Higher Education" on course content in short cycle study programs.

The Annex provides a detailed justification of the relevance of the breakdown of the program components, which is as follows:

- Mandatory part -78 CP (117 ECTS)
- Restricted elective part - 2 CP (3 ECTS)
- Elective part - 0 CP (0 ECTS)
- Qualification work 8 CP (12 ECTS)

The short-cycle professional higher education StP "LP" regularly updates the content of study

courses in accordance with the trends of the industry, labour market and scientific development. Based on the recommendations of employers and graduates, the study program promotes the use of experts for teaching. In general, the necessary dynamism and sustainability of the study program development in accordance with new trends in the field of labour protection science is ensured, its content and structure are improved in accordance with the Strategic Plan of the University, the development strategy of the Faculty of Chemistry and the recommendations of employers.

In line with the latest trends in occupational safety, ergonomics, risk assessment and economic development, the program's study courses and course descriptions are regularly updated. The study program courses in the e-environment (e-learning) are being improved. In the process of updating the content of each study course, the results of research carried out by the academic staff are used, thus giving students the opportunity to get acquainted with scientific and practical innovations in labour protection, to learn in depth the latest research findings (e.g. special contribution has been made by prof. Ž. Roja and prof. H. Kaļķis with the latest educational literature, scientific publications in ergonomics, labour protection and organisation of more efficient work processes).

To ensure that theshort-cycle professional higher education StP "LP" courses meet the requirements of the labour market and the latest trends, there is also continuous qualification development of teaching staff and cooperation with industry specialists. Guest lecturers or specialists and managers from various companies regularly participate in the implementation of the StP in order to share their work experience and knowledge with the short-cycle professional higher education StP "LP" students. During the reporting period, guest lectures and classes of the study program were conducted by leading specialists in the field of labour protection from Latvia, e.g. D. Garais - leading specialist of Ventspils nafta terminals Ltd, A. Grigorjevs - leading specialist of Grif Ltd, Linda Elstiņa - leading specialist in labour protection of Cēsu alus, etc.

In conclusion, the content of the Short-cycle professional higher education StP "LP" provides the necessary knowledge, relevant skills and competences in line with industry and labour market needs and research trends. The range and content of the Program's courses fully comply with the professional education standard and ensure the achievement of the set objective. The level of knowledge, skills, competence and competitiveness enables graduates to find and develop their careers in jobs both in the domestic market and, where appropriate, abroad, in accordance with the education they have received. The short-cycle professional higher education StP "LP" provides the necessary theoretical knowledge and practical skills that enable students to continue their studies in the Bachelor's program Occupational Health and Safety at Work, if it is necessary for further education and professional qualification.

The short-cycle professional higher education StP "LP" descriptions of study courses, internships and final theses are of high quality and in compliance with the requirements of the regulatory enactments, the content is up-to-date, mutually complementary, meets the short-cycle professional higher education StP "LP" objectives and ensures the achievement of study outcomes, as well as meets the needs of the field and scientific trends. The risks of the working environment in different sectors of the economy are studied. Particular emphasis is placed on methods of assessing risks in the working environment, aspects of the organisation and monitoring of the labour protection system at work and ergonomic risks and their impact on the working capacity of employees. This could be explained by the increasing introduction of modern technologies into the labour market, the increase in work intensity and the work in the context of the Covid 19 pandemic. Some examples of research topics that show the very different working environments of both educational institutions and private companies and factories that the graduates of the Program were involved in:

- Reduction of ergonomic risks at Moonflor Ltd, a construction company (2017)
- Maintenance and improvement of the labour protection system at “XXX” (2018).
- Improvement of occupational safety measures in Riga Technical College laboratories (2022)
- Risk of explosive atmospheres in gas storage (2022).

This and other research is relevant to the needs of the sectors concerned, as well as scientific trends in ergonomics, occupational health and safety.

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.

Oral, written, combined study and assessment methods, including remote study tests, are used during the study courses and examinations.

The study program uses a variety of methods to acquire and consolidate knowledge, such as introductory lectures, interactive lectures, summary lectures, and problem-oriented lectures. Practitioners, professionals from different institutions are invited to lecture on individual courses in order to promote the unity of theory and practice. Situational exercises, seminars, individual, pair and group work, discussions and project development, training seminars in industry organisations/enterprises are widely used. Employers are involved in the implementation and development of study courses (invited to lead individual seminars/workshops, often organised as exchange visits to workplaces, etc.).

The course promotes students' public speaking, presentation and discussion skills, using critical thinking. Students prepare mini-projects on topics related to their research, such as occupational risks for woodworkers and health promotion measures; ergonomic risks for office workers working remotely and preventive measures; labour accidents in metalworking companies, protective and preventive measures. Lecturers discuss with students unclear issues, look for solutions, discuss the art of presentation, suggest improvements, etc.

In order for students to achieve the learning outcomes - to acquire and consolidate knowledge, skills and develop competences - the study process is dominated by methods in which student involvement is important. The study process uses methods that promote student communication in

the performance of study tasks, solving real problems in the field, modelling situations. The work is carried out in groups, students discuss, engage in exchange of opinions, and search for solutions. During face-to-face classes, students have the opportunity to do group work in the library, where literature on the issue under discussion is available. This allows students to apply critical thinking to the topic at hand, based on scientific research.

The physical environment is also gradually changing: classrooms can be easily converted for group work, individual work, and students can use digital technologies. Lecturers mostly use methods that encourage students' active participation, critical thinking and reflection, e.g. by involving students in discussions on the topic at hand. Students use examples to demonstrate, analyse and plan the situations they are studying. The e-learning environment is used to support the learning process and independent study. For each study course, an e-learning environment (Moodle) has been created, where students have access to lesson materials, assignment descriptions, additional study materials related to the course topics, as well as study assignments (tests, forums, seminars, conferences, etc.). All grades for mid-term, homework and final examinations are recorded and made available to students in the e-learning environment.

A student-centred approach is followed when updating study programs and their study courses, with particular attention paid to the meaningful formulation of study outcomes, thus promoting dialogue between lecturers and students on study content, forms of organisation and methods. Correctly formulated learning outcomes, in turn, promote students' understanding and ownership of their studies, self-assessment and understanding of the assessment received. In the study process, lecturers use methods, forms of examination and assessment criteria that are appropriate to the aim of the study and the planned study outcomes. Before starting a course, lecturers practise finding out how students understand the course title in relation to the study program, what they expect from the course, and how they will apply the knowledge they have acquired in practice. After the course, lecturers summarise the results of the final examination, analyse with students the mistakes made, find out how students would like to implement the course differently, if there are such wishes.

Students receive support and feedback from lecturers during their studies. The assessment criteria for grading are made public in advance. The results of midterm examinations or seminars are discussed in the next class, pointing out weaknesses or praising those who have given full and creative answers that contribute to the relevant scientific field. Assessment provides an opportunity for students to demonstrate the extent to which they have achieved the expected learning outcomes.

Students have the opportunity to receive individual counselling from academic staff not only at the appointed times, but also at other times, by prior arrangement with the lecturer, which leads to the conclusion that lecturers' counselling is accessible to all students. Often, unclear issues are analysed during the lesson.

Following the principles of student-centred education, student mobility (recognition of study results) is promoted, and students engage in research and social activities in the community initiated by academic staff, thus gaining significant experience in applying what they have learned in their studies in practice. The study process is sufficiently flexible, which basically allows to combine work/family life with studies.

As part of the internal quality assurance policy, study programs are implemented in such a way that students are encouraged to actively participate in the improvement of the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. It should be noted that there were no such cases during the reporting period. The results of student surveys are evaluated and taken into account in the improvement of

the study process. Students are also willing to express their suggestions for the improvement of study programs and process in discussions with lecturers, program director.

For example, the staff teaching fire and electrical safety courses are practitioners in the field who provide students with an insight into the legislative requirements and also the practical aspects of safety monitoring. The courses on physical hazards are taught by industry experts such as Maris Dambis (Insalvo Ltd) on electromagnetic fields and hazards in the construction industry. The course on chemical safety was given by representatives of Ventspils Nafta. During the last four years, students have had practical training in the following companies: Cēsu alus, Ltd Addinol, Ltd Getliņi EKO, etc. In the companies, students are introduced to the risks of the working environment, students carry out practical assessments of the risks of the working environment, write suggestions and proposals.

As part of the internal quality assurance policy, study programs are implemented in such a way that students are encouraged to actively participate in the improvement of the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. The results of student surveys are evaluated and taken into account in the development of the study process. Students willingly express their suggestions for the improvement of study programs and the process in discussions with lecturers, program directors. For example, students suggested that the program director should involve experts in the field in teaching courses.

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).

In short-cycle professional higher education StP "LP" there are two student internships in total, which include -

- Practice in speciality 8 CP (12 ECTS)
- Qualification paper 8 CP (12 ECTS)

They are designed in accordance with the regulations of the LU and in accordance with the Cabinet of Ministers Regulation No.305 of 13 June 2023 "Regulations on the State Standard of Professional Higher Education", providing students with placement opportunities of 16 CP (24ECTS).

The "Internship in the specialty" is carried out in the 2nd year of study and students demonstrate the knowledge and skills acquired in the course. The aim of the placement is to strengthen skills and abilities in working with normative documents in the field of labour protection.

The main tasks include a description of the structure of the enterprise and the organisation of the labour protection system, identification of workplace risks, description of the procedure for granting OHS, compilation of the Cabinet Regulations binding on the enterprise.

Based on the methods of risk assessment and in-depth analysis of work environment risks in

companies of different industries learned in further study courses, in the 4th semester students carry out a "Qualification Internship" in a company, during which students have to carry out in-depth assessment of work environment risks, including collecting employee questionnaires on self-assessment, analysing indicative measurement data and applying methods learned in the course to assess work environment risks.

During this placement, students improve the knowledge acquired in the course and build on previous placements. The results of the placement allow the assessment of the objectives of the qualification on the basis of the evaluation of the results of the "qualification internship".

The learning outcomes of the internship courses fully cover all 9 learning outcomes of the StP "LP" (see Annex 20.1 Mapping of Study Courses).

The internship regulations have been developed according to the field of study and study program. The study program director has additionally developed for each placement an explanation of the work to be performed by the students during the placement in the enterprise. This information is accessible to all students as it is embedded in e-learning. To achieve the desired outcome, students in Internship 1 identify the risks in the working environment, audit the enterprise/organisation under study, familiarise themselves with the range of labour health and safety legislation in the organisation, and identify the effectiveness of its application in the organisation. Identify gaps in the labour health and safety system and measures to improve them. During the Internship 2, students carry out risk assessment and analysis of the results in the company/organisation in accordance with the knowledge acquired in the theoretical courses. During the Internship 3, students already apply the theoretical knowledge and contribute to the development of preventive and protective measures for employees; they learn to work with scientific literature, are able to find the necessary solutions, are able to present the results to the management and employees of the company/organisation. After each internship, students carry out a self-assessment and the relevant employer (the placement manager in the company) provides a written evaluation of the student's work, understanding and contribution during the placement. This evaluation is useful for analysing the knowledge acquired by the students in the relevant courses of study and for assessing the employers' opinion on the relevance of the study program in today's conditions. The tasks of the internship in the specialty and the qualification internship are discussed in the meetings of the direction council and agreed to meet the standard of the labour safety specialist.

The Director of the Study Program shall, before the start of the internship, offer possible placements to students and, if necessary, get involved and organise a placement for students. For example, the program director has recommended placements in the following companies: the University of Latvia under the supervision of a labour safety specialist, Ltd Latvenergo, etc., where students learn practical skills in labour safety and health according to the practice regulations and the description of the work to be performed. The Commission for the defence of internship involves practitioners with long-term experience in labour protection, e.g. Māra Vīksne (Ministry of Welfare), Linda Matisāne (State Labour Inspectorate), Linda Elstiņa (Ltd. Cēsu Alus), Māris Dambis (Ltd. INSALVO), Aija Mortukāne (Ltd. Valsts nekustamie īpašumi), etc.

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 choice of the topic of the final thesis of the students corresponds to the topicalities of the contemporary labour market, addressing local (e.g. risks of the working environment of a specific organisation, improvement of safety and protection measures in Latvian companies, etc.) and global (e.g. the role of ergonomics and human factor in contemporary work processes, and ergonomic approaches to work protection, etc.) problems and challenges. The selected topics are in line with the objectives of the study program and ensure the achievement of the learning outcomes, as well as being in line with the needs of the sector and scientific trends. The risks of the working environment in different sectors of the economy are studied. Particular emphasis is placed on psychosocial risks at work and ergonomic risks and their impact on the working capacity of employees. This could be explained by the increasing introduction of modern technologies in the labour market, the increase in work intensity and the work in the context of the Covid 19 pandemic. The process of analysis and evaluation of the final thesis topics leads to the conclusion that students are able to research and identify the most relevant areas related to ergonomics, occupational health and safety and workplace risks. The choice of such topics shows that students have an understanding of occupational safety and health and are able to develop scientifically sound preventive and protective measures in the relevant sectors of the economy. Students choose topics related to ergonomics, such as how to prevent musculoskeletal disorders caused by prolonged sitting at a computer, or how to provide an ergonomic workplace to reduce fatigue and excessive physical strain at work, or how to improve cognitive abilities at work. Students also choose topics related to occupational safety, such as how to prevent accidents in the workplace or how to use the right protective equipment to reduce the risk of accidents. Often, students explore the impact of workplace hazards, such as how to prevent common toxic contaminants, or how to prevent noise or vibration, which can have a negative impact on people's health and safety at work. They use a variety of research methods and tools such as literature analysis, interviews, surveys, observation and experiments. These methods help students to obtain the necessary information on the chosen topic.

Some examples of research topics:

The following qualification theses were defended in 2018:

- Improvement of the occupational health and safety system at Ltd. "Celtniecības firma M un V" (Construction company)
- Maintenance and improvement of the labour protection system at "XXX".

In 2020, the number of defended qualification theses reached 14:

- Improvement of labour protection at Ltd "Vidzemīte".
- Criteria for the selection of personal protective equipment and its role in reducing workplace risks
- Improvement of the labour protection system at VAS "Latvijas Pasts".
- "4 PLUS" Ltd.'s labour protection system and its improvement.
- Reduction of ergonomic risks in the fibrolite production company "CEWOOD" Ltd.
- Improvement of the labour protection system in the logistics company Ltd. "Vervo". Psycho-emotional risk factors in the working environment and ways to reduce them in Pre-school educational establishment "Kamenīte".

- Ergonomic risk factors of the working environment Ltd. "ACK Būve".
- Assessing the risks to the working environment of brush-cutter operators and developing preventive measures.
- Improving the working environment at Ausmeņa Ltd.
- Improvement of the labour protection system at Intario Ltd .
- Labour protection system at Smiltene Technical School Alsviķi.
- Improvement of briefing processes in the municipal authority of Rezekne municipality "Malta parish association".
- Improvement of the labour protection system in the municipality of Aizkraukle.

Some of the themes for 2022 included:

- Involvement of employees in improving the working environment at the University of Latvia

- Improvement of occupational safety measures in Riga Technical College laboratories

- Work environment risks and innovative solutions for chainsaw and brush cuter operators in Parish administrations

- Ergonomic analysis of the workplace for the position of salesperson for Ltd. "Kesko Senukai Latvia"

- Electronic equipment assembler and related work environment risk factors

- Assessment of work environment risks for office and warehouse workers in the logistics sector

- Explosive environmental hazard in gas storage

- The impact of online learning on psychosocial factors in the work of pedagogues

- Most significant occupational risk factors in warehouses and preventive measures

- Assessment of ergonomic risk factors of polygraphy company printing operator

These student theses were defended in November 2022.

The program can therefore be considered to provide a comprehensive range of new labour protection specialists who can work within their knowledge in companies and institutions at different levels.

During the reporting period, the qualification papers of the study program "Labour Protection" have been evaluated in different ways, but in general they ranged from 7-9 points. In very rare cases, the assessment of qualification papers ranged from 4-6 points. For example, in 2022, a paper entitled "Impact of distance learning on Psychosocial Factors in the work of teachers" received 4 marks because the study did not include methods for assessing workplace risks and the paper met the minimum requirements for a qualification paper. In comparison, the 2022 qualification paper entitled 'The position of electronic equipment assembler and the associated risk factors in the working environment' was awarded 9 points because the study included not only subjective but also objective methods for assessing risks in the working environment and developed scientifically sound
proposals.

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.

For the implementation of the Short-cycle professional higher education StP "LP", all the resources available at the disposal of the LU and the Faculty of Chemistry are accessible. A detailed outline is presented in the Self-Evaluation Report of the Study Field "Internal Security and Civil Protection", Part II, Chapter 2.3, paragraphs 2.3.1-2.3.4. In addition, Annex 31 lists the equipment available at LU and FChem that is used for study work, demonstrations, student use, practice and qualification work. For example, equipment is available to students for making indicative measurements of microclimate, lighting and vibration factors in the working environment, and the correct use of this equipment, making measurements, interpreting and processing the results, using modern methods of risk assessment of the working environment are demonstrated during the study courses.

In courses dedicated to ergonomics research in the working environment, measuring equipment is demonstrated for the objective measurement of the ergonomics and health status of workers.

Other types of equipment are also available to students, which can be used for the characterisation of powdery substances, as well as for the measurement of liquid and air samples in students' practical and qualifying work.

Students are introduced to this equipment in the Chemicals and their Safety course and in other courses.

Students and lecturers of the University of Latvia have access to modern multidisciplinary bibliographic information and scientific journal database platforms such as SCOPUS, Web of Science, multidisciplinary e-journal and e-book databases such as ScienceDirect, SpringerLink, Wiley, etc., which are listed on the University's website: https://www.biblioteka.lu.lv/en/resources/subscribed-e-resources/.

The databases are used both for updating course information and for students' mid-term and final papers.

The Program Director regularly organises seminars for students, tasks for searching scientific publications in the available scientific databases of the University of Latvia, which improves students' practical experience in working with scientific databases, preparing literature reviews as part of the final - qualification work.

The outline of the available resources allows concluding that they create preconditions for the implementation of the study program, including students' independent studies and research. The study information base is regularly improved and supplemented with the most up-to-date information resources in accordance with the needs of academic staff and students.

The adequacy and relevance of the available resources and facilities to the needs of the Study Program is also reflected in the results of student and graduate surveys. Graduates of the Study Program gave a score of 5.3 (between rather agree and mostly agree) for the criterion "material and technical (rooms, computers and internet access) provision" in the 7-point system, and 5.6 for the criterion "useful resources offered by the LU Library". Overall, the study environment is rated 5.8. Graduates mentioned that the study environment was conducive to learning, and that the literature, databases, and other electronic resources needed for their studies were available in the

LU library or in the information system. Graduates indicated that they were satisfied with the opportunity to get acquainted with and work with specialised computer programs during their studies, which could be used for research and application outside the University.

Having assessed the resources, information and material-technical base available to students, it can be concluded that they fully meet the conditions for the implementation of the first-level study program and ensure the achievement of the study program outcomes by the students.

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).

Program income

To provide the necessary means for the implementation of the short-cycle professional higher education StP "LP", the University uses tuition fees. An overview of the (planned) distribution of students by type of study and annual income is presented in Table 3.3.3.1.

Table 3.3.3.1

Number of students and annual income

Type of studies	LV Paid studies	EU/EEA/SC * paid studies	Total	Paid studies for LV and EU/EEA/SC citizens	Annual income
	number	number	number	EUR	EUR
FTreg	40	0	40	1700	68 000

PTreg	40	0	40	1700	68 000
Total			**80**		**136 000**

* EU/EEA/SC - European Union/European Economic Area/Swiss Confederation

Program costs

In order to estimate the amount of funds required for financial support, the LU calculates the cost price for study programs according to a methodology developed by the LU, which takes into account the costs of study process support described in the section "Financial support for the StF" and information on the study Program plan, involved teaching staff, planned number of students, etc., thus ensuring the reliability of the estimates.

Program costs for part-time regular studies (PTreg) and full time regular studies (FTreg).

For the calculation of the short-cycle professional higher education StP "LP" the PTreg. implementers use the data of the academic year 2022/2023 - the number of students as of 01.10.2022, the study plan/norms and the structure of the academic staff involved. Full-time presence (PTreg) is not implemented yet. Based on these data, the total annual costs of the Program are EUR 134 560 and their structure (percentage breakdown) is shown in Table 3.3.3.2.

Table 3.3.3.2.

Percentage breakdown of costs in the Study Program

Expenditure heading	**% of total**
Teaching staff costs	58%
General staff	4%
Other costs	
Infrastructure expenditure	10%
Property and services	2%
Indirect costs	26%
TOTAL EXPENDITURE	**100%**

Figure 3.3.3.1 visually shows the cost of the study program (vertical axis) depending on the number of students (horizontal axis) with a red line and the weighted average tuition fee (green line).

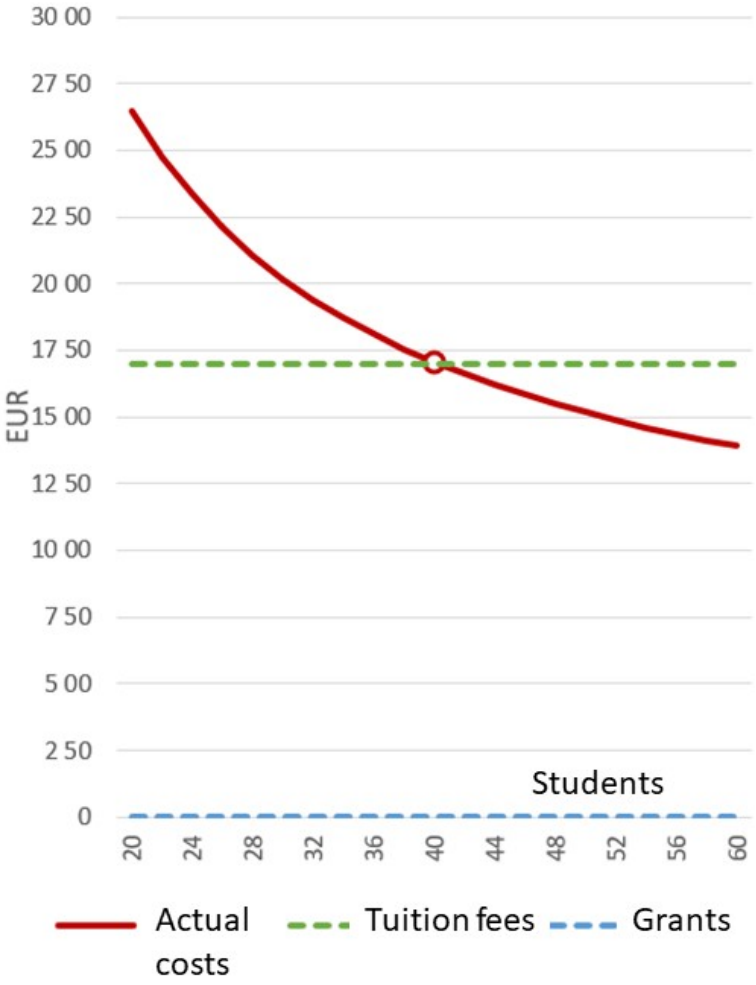

Figure 3.3.3.1 ***Cost of the short-cycle professional higher education StP "LP" per number of students***

Based on the cost structure and the total number of students of 40, the cost of the program per student (own cost) is €1682 per year.

For the program to be cost-effective, the minimum number of fee-paying students in FTreg and PTreg must be at least 40 (intersection of red and orange lines).

Summary of program income and costs

Table 3.3.3.3 summarises the projected number of students, program revenue, expenditure, outcome and profitability (outcome to revenue, %) by all forms of delivery.

Table 3.3.3.3.

Program result

Type of studies	Total	Annual income	Annual expenditure	Result	Profitability
	number	EUR	EUR	EUR	%

FT reg.	40	68 000	67 280	720	*1%*
PT reg.	40	68 000	67 280	720	*1%*
Total	**40**	**136 000**	**134 560**	**1440**	***1%***

Conclusion:

The short-cycle professional higher education StP "LP" is cost-effective. In general, the projected income exceeds expenditure and does not require support from other financial resources. The data presented in the table below demonstrate that the LU has sufficient resources to implement the study program and ensure its further development. In addition, the development of the program can be financed from income received from lifelong learning and other services as well as from the financial resources accumulated by the unit. The faculties also receive financial support for program development from the University's Study Quality Improvement Fund.

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.

Short-cycle professional higher education StP "LP" study courses are taught by the faculty members elected by the FChem of the University of Latvia, as well as by faculty members from other universities (e.g. lecturer O. Sņegovs from RTU) or companies (e.g. guest lecturers D. Garais, A. Mortukāne) and State administration institutions (S. Zariņa), as well as from other faculties of the University (e.g. prof. H. Kaļķis, prof. A. Batraga, assistant prof. J. Burlakovs, assistant prof. V. Vezis, etc.). The selection of the teaching staff involved in the study program is based on their academic experience, qualifications, and scientific research activities. Of the teaching staff involved in the program, 67% have a doctoral degree and the rest have a master's degree, which indicates that the qualifications of the academic staff are fully in line with the programme requirements and ensure the necessary quality of the programme studies.

The academic staff consists of full-time and part-time lecturers of the Faculty of Chemistry of the University of Latvia. All lecturers of the LU Faculty of Chemistry involved in the implementation of the study program also participate in the implementation of bachelor, master or doctoral programs. Organisational issues, including lesson planning and cooperation with students, are dealt with by the study program director, together with the Dean and Secretary of the Faculty of Chemistry, the

head of the field of study, who maintains contacts with the administrative structures of the University.

Lecturers and guest lecturers - practitioners without a PhD - provide practical classes, seminars for students of the short-cycle professional higher education StP "LP". Representatives of other faculties of the LU participate in the implementation of the program: the Faculty of Biology, the Faculty of Business Administration and Economics, etc. The qualifications of the teaching staff fully meet the requirements of the study program, the aim and objectives of the program.

All lecturers have relevant experience and their professional background is not in doubt (see CVs of academic staff). The lecturers have relevant teaching experience, combined with active work in the LSC and National Research Programs. For example, assoc. prof. Roja was the first in Latvia to develop the principles of work environment risk assessment and from 2001 started to educate students at the highest level about work environment risks, workers' health protection and load ergonomics, using the most popular risk assessment methods in the world and European Union, which are described in several textbooks. Programme Director, assoc. prof. I. Reinholds has focused his research work on statistical processing methods, control of chemical pollutants, study of material properties and aspects of physical chemistry - this knowledge and experience is integrated into the taught courses to demonstrate to students effective solutions for planning preventive measures in various situations based on the assessment of work environment risks and technological processes. The research of the lecturers of the program in the field of labour protection (more than 100 papers) has been published in scientific journals, reported in many international conferences and world congresses in the field of labour protection and ergonomics (Maastricht, Las Vegas, Beijing, Miami, Crete, San Francisco, etc.) (see lecturers' CVs). The lecturers involved in the study program regularly update their scientific and academic qualifications.

All lecturers involved in the study program regularly (once a year) improve the content of study courses, update e-learning materials, as well as have successfully adapted to the rapid transition to distance learning, using MS TEAMS, Zoom, E-learning environment and other opportunities for remote work, which are fully provided by the University of Latvia.

From 2018 onwards, regular visits of lecturers in the short-cycle professional higher education StP "LP" s have been initiated, which allows to evaluate the effectiveness of the improvement measures of lecturers involved in the implementation of the study program (e.g., in the academic year 2021/2022, prof. H. Kaļķis visited a lecture and seminar delivered by assoc. prof. Ž. Roja and assoc. prof. I. Reinholds;assoc. prof. Ž.Roja visited lecturers K. Andža, prof. Bataraga, A. Podgornovs, prof. H. Kaļķis). The pace of mutual visits was slightly hampered by the remote study process in the 2020/2021 academic year, but even in remote mode visits were as planned. The plan is to continue to implement visiting on an ongoing basis. It should be noted that in the academic year 2019/2020, the Council of the Study Field "Internal Security and Civil Defence" was established, which elaborated the Strategy for the Development of the Study Field for 2020-2025 (attached as Annex 3 to the self-assessment report). The strategy stipulates that a meeting of the study program staff is held every academic year to ensure the interconnection of the study courses, which is regularly implemented.

Academic staff participate regularly in various training courses and professional conferences to improve their professional qualifications and study programs (see CVs of academic staff). For example, Ž.Roja, H.Kaļķis have acquired continuing education: University Didactics: Advanced theories and practice; Professional Development Education, as well as other training in other areas, keeping up-to-date with current labour market competences in labour safety, ergonomics and health promotion. This is evidenced by CV entries and certificates. The lecturers concerned have

participated in several continuing training courses on collegial learning experiences, as evidenced by certificates (see CVs). They have also used or are currently using opportunities offered by the University to improve their English language skills, e.g. Ž. Roja, I. Reinholds.

Assoc. prof. Ž. Roja is the Chairperson of the Board of the Latvian Ergonomics Society, and prof. H. Kaļķis is a member of its Board. H. Kaļķis also represents the Latvian Business Efficiency Association and is a member of its Board (Board member until 2018). Both lecturers not only organise relevant seminars and events themselves, but are actively involved in their activities. Usually, students of the 1st and 2nd year of the study program "Work Environment Protection and Expertise" are invited to such events for exchange of experience, but there is also an opportunity for students of the study program "LP" to participate. Other lecturers are also involved in the activities of professional associations, where they acquire current knowledge in the relevant field and further decide on the application of knowledge in the study process.

To master several subjects more fully, guest lecturers from other cooperating universities or institutions, including from abroad, are involved in the courses, for example, guest lecturers from:

- Latvian Free Trade Union Confederation (K. Rācenājs, Ms.sc.; M. Pužulis, Ms.sc.);

- Riga Technical University (A. Podgornovs, professor);

- Latvian University of Life Sciences and Technologies (U. Karlsons, Ms.ing.sc., PhD student at LU);

- Māris Dambis (Ltd. Insalvo)

- Latvian Ergonomics Society (D. Garais, Ms.sc.);

- etc.

The academic staff selection policy is applied due to the need to involve not only LU lecturers, but also guest lecturers - leading Latvian specialists - in the program implementation, in order to cover all possible issues related to work and environmental expertise. The main criteria for selecting guest speakers are competence, knowledge, practical experience, and the ability to transfer their knowledge to others. The Faculty's guideline is that it should support the further attraction of highly qualified specialists or academics for the implementation of the Program on a part-time basis from local institutions and from abroad, provided that these specialists not only lecture but are prepared to contribute to the development of the Faculty's scientific work and academic activities.

The renewal, training and development policy is based on those teaching staff who are likely to add to the number of Study Program implementers, including academic staff, in the near future. These are mainly Masters and PhD students from the Faculty of Chemistry, as well as the Faculty of Economics and Management (S. Kočerova, P. Freiberga, U. Karlsons, A. Roganovs, etc.). In 2022, these PhD students reviewed the qualification papers of the graduates of the study program, thus strengthening the knowledge and academic experience that was transferred to the students of the first cycle study program.

It should be noted that the Study Program is mostly implemented by the faculty members of the Faculty of Chemistry elected for 6 years in accordance with the laws and regulations. Therefore, it can be concluded that the qualifications of the teaching staff involved in the implementation of the study program fully comply with Article 55 (1) of the Law on Higher Education of the Republic of Latvia.

Table 3.4.1.1.

Teaching staff involved in the implementation of the study program "Labour Protection" (up-to-date data at the moment of submission of the self-assessment report)

Degree Position	PhD	Master's degree	Level 2	Total
Professors	3			**3**
Assoc. professors	4			**4**
Assist. professors	4			**4**
Lecturers	1	3		**4**
Hourly paid staff		5	1	**6**
Total	**12**	**8**		**21**

The policy of renewal, training, and development of academic staff is carried out in accordance with individual plans approved by the Rector of the LU and the Dean of the Faculty of Chemistry by signing employment contracts with the respective academic staff.

The short-cycle professional higher education StP "LP" faculty members participate in international projects, projects of the Latvian Council of Science and other institutions. The Program lecturers also regularly participate in international conferences, conduct joint topical research in the field with PhD students, publish research results in internationally recognised journals indexed in Scopus and Web of Science databases, thus ensuring the improvement of study course content in line with industry trends.

Overall, the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" fully ensures the achievement of high-quality study program results. This is evidenced by several considerations:

- the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" are recognised experts in their field in Latvia and abroad, as evidenced by their published textbooks and scientific monographs (assoc.prof. Ž. Roja, prof. H. Kaļķis);
- the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" are researchers recognised in Latvia and abroad, who publish in internationally peer-reviewed scientific journals and collections of articles (prof. H. Kaļķis, prof. A.Batraga, assoc. prof. Ž. Roja, assoc. prof. I. Reinholds, etc;
- the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP"are experts in their field, recognised in Latvia and abroad, participate in various projects, including national research programs (assoc. prof. Ž. Roja, prof. H. Kaļķis, I. Reinholds, etc.), international projects (prof. A. Batraga, etc.), applied research, etc. Several faculty members are also experts of the Latvian Council of Science in health sciences, social and engineering sciences, and chemistry (prof. A. Batraga, prof. H. Kaļķis, assoc prof. Ž. Roja, assoc prof. I. Reinholds, etc.
- several faculty members are active in and chair professional associations, e.g., assoc. prof. Ž. Roja. is the head of the Latvian Ergonomics Society and is active in the Latvian Medical Association, the Latvian Society of Labour Health and Labour Diseases Physicians, prof. H. Kaļķis is a board member of the Latvian Ergonomics Society, a member and expert of the Latvian Business Association, I. Reinholds is a member of the Latvian Ergonomics Society, the Latvian Materials Research Society, a member of the Scientific Committee of several

scientific institutions (BIOR, Institute of Chemical Physics), Chairman of the Ethics Committee of DAIF Latvia, Secretary of the Ethics Committee of the Faculty of Chemistry of the University of Latvia.

The teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" are continuously improving their professional and pedagogical qualifications. For example, they participate in LU continuing education programmes, Open Minded courses, courses of other institutions, international conferences. Opportunities for professional development include: academic (creative) holidays, doctoral studies, lectures at foreign universities, participation in expert groups, etc.

Academic staff regularly participate in various training courses and professional conferences to improve their professional qualifications and study programs (see CVs of academic staff). Many factors influence the policy on staff recruitment, renewal, training and development:

- work with prospective PhD students (e.g. H. Kaļķis, I. Reinholds), which starts already during their Master's studies;
- motivation of teachers to obtain the relevant academic qualifications;
- the establishment of the new doctoral study program "Human Factors, Labour Safety and Health", which provides an opportunity to attract doctoral students with the prospect of future employment in the implementation of the study program (currently 5 out of 7 doctoral students are graduates of this study program and have started their careers as research assistants);
- the possibility of taking creative leave to study at universities abroad;
- a long-term forecast for the implementation of staff renewal and recruitment plans linked to election deadlines.

Details on the relevance of the qualifications of the teaching staff can be found in the CVs of the teaching staff and in the summarised information on publications and other activities.

In view of the above, it can be stated that the composition of the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" enables the full achievement of the objective and the planned results of the Study Program, providing both quality theoretical knowledge and research skills in the field of Labour Protection Sciences, as well as practical training, which enables successful involvement in solving problems in the field.

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 changes in the composition of the teaching staff of the Short-cycle professional higher education StP "LP" during the reporting period are mainly attributable to the updating of the program content, taking into account the latest trends in the field of labour protection and the involvement of experts in this field in the teaching of the courses.

Since 2022, the director of the programme "LP" has changed - I. Reinholds, assoc prof. of the Faculty of Chemistry of the University of Latvia, has been confirmed as the director of the Program. He has already been involved in teaching study courses in StP "LP" and also in the professional bachelor and master programs implemented in the framework of the field at the Faculty of Chemistry.

Courses taught by the previous Director included the use of hourly lecturers - experts in the field who have taken over the teaching of the courses. For example, the course " Labour Protection Legislation" continues to be taught by S.Zariņa, Head of the Methodological Management and Competence Development Unit of the State Labour Inspectorate. After listening to the course, the second year students have positively evaluated the professionalism of the guest lecturer and her knowledge and understanding of labour safety issues. Sņegovs and D. Garais, and U. Karlsons, who were also involved as guest lecturers in the teaching of the course. The guest lecturers have both lecturing experience and practical experience, providing students not only with theory, but also guiding students in practical fire and electrical safety risk assessment, planning work, so that, based on examples and their analysis, future labour safety specialists can plan effective preventive measures. This has been positively evaluated by the students.

Based on the student surveys, the study course "Fundamentals of Entrepreneurship" has been updated by creating a new study course "Business Management and Entrepreneurship", which is taught to students by Prof. H. Kaļķis. Given the need for knowledge of the fundamentals of business management, many students have very much appreciated the modern relevance of the course to the working environment and market trends, providing students with the necessary knowledge and competences. The updating of the chosen course also contributes to the objectives set out in the qualification standard for labour protection specialists in terms of self-initiative and entrepreneurial business management fundamentals, which corresponds to the set knowledge at the level of understanding: problem-solving strategy and approaches and motivational principles.

In recent years, the overall course content has been adapted according to the results of student surveys and the influence of various factors. Since 2022, the Civil Protection course has been taught by Dr. R. Ražuks, MD, who has also taken over the First Aid I course, which is taught also by by an hourly lecturer Linda Ostrovska, basing on competences. Based on the students' feedback, Dr. Razuk's experience ensures the improvement of the courses.

Table 3.4.2.1 shows the changes in the composition of the teaching staff during the reporting period.

Table 3.4.2.1.

Changes in the teaching staff of the short-cycle professional higher education StP "LP" referring to the previous accreditation period 2019

Position	2019	2022
Professors	2	3
Associate professors	3	4
Assistant professors	5	4
Lecturers	5	4
Hourly-paid staff	6	6

Changes in the qualitative content of teaching staff are mainly related to the academic development of the lecturers and are aimed at obtaining higher qualifications. In the academic year 2020/2021, lecturer E. Pajuste was elected to the position of associate professor and H.Kaļķis was

elected to the position of professor. In 2022, I. Reinholds was elected as associated professor.

The number of professors has increased from 2 to 3, the number of associate professors has increased from 3 to 4. The composition in percentage terms has not changed significantly in the reporting period. It can be considered that the involvement of specialists in the field, the proportion of academic staff has increased compared to the study program when it was attached to the University of Latvia. Such changes had a positive impact on the implementation of the study program in terms of the use of a unified methodological approach in studies and their organisation, while at the same time the involvement of practitioners in the teaching process remained unchanged.

In recent years, the Study Program has been joined by D.Garais (industry expert, representative of Ventspils Nafta Terminal), A.Grigorjevs (guest lecturer in the first level program and independent lecturer in the higher level bachelor program (leading expert in personal protective equipment in Latvia, SIA Grif), A.Mortukāne (Head of the Labour Protection Association at Valsts Nekustamie īpašumi), etc.

In general, it can be concluded that **the composition and changes of the teaching staff involved in the Study Program "Labour Protection" are positively evaluated, thus ensuring high quality of education and are appropriate for the achievement of the study courses and the overall study results of the Program. This is also reflected in the feedback from students and graduates.**

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).

Faculty collaboration is important to ensure that the program's faculty members can jointly develop and implement the intended study plan that meets the requirements of the OSH industry and professional standards, as well as the needs of the students. The educators of the Short-cycle professional higher education StP "LP"regularly cooperate with each other and adjust the content of the courses as necessary to ensure that all relevant aspects related to occupational health and safety are covered in the study program and that the latest knowledge is complementary and not duplicated within the courses.

Cooperation of the teaching staff involved in the implementation of the short-cycle professional higher education StP "LP" is continuous, for example, regularly - twice a year - at the meetings of the Board of the "Internal Security and Civil Defence" all study program lecturers are invited and issues related to the study and methodological work are discussed. This ensures the interconnection of study courses and prevents overlaps in the content of study courses. The content of the study program and individual study courses is discussed at the meetings of the study field council.

In order to facilitate the cooperation of the Faculty of Chemistry teaching staff in the field of study "Internal Security and Civil Defence", the head of the field of study together with the directors of the short-cycle professional higher education StP "LP" organises monthly meetings, including information on methodological work and on topical issues related to the improvement of the content of study courses, organisation of lectures and seminars, development of e-studies, inclusion of the latest literature in study courses. Meetings are held in person or on the MS-Teams platform.

Recently, the issue of improving course descriptions, content and materials in the e-learning environment has been raised. The Department of Information Technologies of the LU regularly offers e-learning training seminars for lecturers "Improvements of the e-learning environment or Moodle". Several discussions on these issues were held within the Faculty of Chemistry to enable the Program's lecturers to make full use of e-learning opportunities in their courses.

Cooperation between teaching staff is also expressed in the form of mutual visits to classes in order to improve the study process and increase the quality of classes (e.g. I Reinholds visited the lecture of professor H. Kaļķis in the course " Total Quality Management System ", as well as the lecture of O. Sņegovs in the course "Fire Safety", M. Danušēvičs in the course " Statistics basics", assoc. prof. Ž. Roja visited lecturer K. Parasiga-Parasinas in the course "Basic principles of occupational health and occupational hygiene", prof. H. Kaļķis visited Marta Urbāne in the course "Legal system and the most important aspects of labour law ", lecturer I. Daugule visited A. Batraga in the course "Record keeping and correspondence"). Regular mutual visits of lecturers also take place during the election process for academic positions. During the mutual attendance of the classes, experience is exchanged and teaching methods are discussed. This practice allows enriching the teaching methods and styles of each member of staff.

The evaluation of the cooperation between the staff of theshort-cycle professional higher education StP "LP", and the student-staff ratio are important factors that can influence the quality and effectiveness of the study program. At the moment of preparation of the self-assessment report (01.01.2023) 18 students (1st year - 4 students, 2nd year - 14 students) have been registered in the information system of the LU short-cycle professional higher education StP "LP", which makes the ratio of 0.86 students per one teaching staff member. This ratio is very good and appropriate

for first-level studies, as on average there is one lecturer per student. This helps to conclude that the study process allows for an individual approach to each student and ensures that students understand and master all relevant aspects of the study program. This was also confirmed by the students' assessment of the availability of lecturers (see student assessment data).

Overall, it can be concluded that **there is good cooperation between the teaching staff involved in the Study Program and that a mechanism has been developed within the field of study to facilitate their cooperation.**

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	Annex 15.1_Model diploma to be issued for the acquisition of _EN.docx	15_1_pielikums_Par studiju programmas apgūšanu izsniedzamā diploma un tā pielikumu paraugs_LV.docx
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 16.1._Statistics on students in the reporting period Labour Protection_ ENG.docx	16_1_pielikums_Statistika_par_studejosajiem_Darba_aizsardz -korekcija.docx
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 17.1_Conformity of the study programme with the State Education Standard_ ENG.docx	17_1_pielikums_Pirma Limena Prof programmas DA _Atbilstiba_valsts_izglitibas_standartam.docx
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 18_1_Compliance of the short-cycle higher professional study program LP with the professional standard.docx	18_1_pielikums_PirmaLimena DA_profesijas_standarta_kartejums LV.docx
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	30_1_Conformity of course content of the StP LB o the regulatory enactments of the Republic of Latvia - kopija.docx	30-1_ĪCAPIStP DA kursu satura atbilstība Latvijas Republikas normatīvajiem aktiem.docx
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	ANNEX 20_1_Mapping of study coursesmodules for achievement of study results of study programme.xlsx	20_1_pielikums_Studiju kursu moduļu kartējums studiju programmas studiju rezultātu sasniegšanai.xlsx
The curriculum of the study programme (for each type and form of the implementation of the study programme)	ANNEX 21_1 Study_plan.xlsx	21_1 pielikums_Studiju plāni darba aizsardzība programmā LV.xlsx
Descriptions of the study courses/ modules	ANNEX_22_1_Study course.doc	22_1_Pielikums_Studiju kursa apraksti_ LV.docx
Description of the organisation of the internship of the students (if applicable)	ANNEX_29-1 Description of student practice organisation_ ENG.pdf	29_1_pielikums_ Studējošo prakses organizācijas apraksts.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 Health and Safety at Work (42862)

Study field	*Internal Security and Civil Protection*
ProcedureStudyProgram.Name	*Occupational Health and Safety at Work*
Education classification code	*42862*
Type of the study programme	*Professional bachelor study programme*
Name of the study programme director	*Ingars*
Surname of the study programme director	*Reinholds*
E-mail of the study programme director	*ingars.reinholds@lu.lv*
Title of the study programme director	*Dr. ķīm., asoc. profesors*
Phone of the study programme director	*+371 26802448*
Goal of the study programme	*To train qualified occupational safety engineers who are able to organise and plan work related to the health and safety of employees at work, the monitoring of the working environment, the assessment of risks and measures to prevent or reduce them, as well as to effectively manage departments in occupational safety.*
Tasks of the study programme	*1. Provide an opportunity to master a professional higher education bachelor study program in labour protection and at the same time to obtain a professional qualification of occupational safety engineer, which provides knowledge and skills in accordance with the requirements of the occupational standard "Occupational safety engineer";* *2. Develop the ability to critically analyse and evaluate the impact of work environment risk factors on employees and to address issues related to their effective prevention;* *3. Develop the skills to report competently to employers and employees on the results obtained;* *4. Develop the skills speak publicly in the media, think critically and make decisions on workplace safety issues;* *5. Develop the skills in the investigation and documentation of occupational diseases and accidents at work;* *6. Develop the skills to apply European Union and Latvian laws and regulations as well as standards in occupational health and safety in practice;* *7. Develop the skills to critically evaluate the results of qualitative and quantitative analyses of risk factors in the work environment by learning the fundamentals of natural sciences;* *8. Provide opportunities to develop basic social, communicative and organisational skills;* *9. Provide opportunities to acquire basic competences in entrepreneurship.*

Results of the study programme	*Knowledge:* *1. understands the labour protection management system, its organisation and functions;* *2. understands the norms and requirements of labour protection regulatory acts and standards;* *3. understands the risk factors of the work environment and their impact on the safety and health of employees.* *Skills:* *4. knows how to create and maintain a coherent and comprehensive labour protection management system;* *5. knows how to choose and apply suitable and modern techniques for improving the working environment, justifying the usefulness of the chosen solutions;* *6. knows how to promote employees' understanding of the importance of safe behavior at work to reduce the frequency and severity of the consequences of occupational diseases and accidents at work;* *Competence:* *7. able to independently perform the duties of a competent specialist in labour protection issues;* *8. plans economically and practically justified measures to improve the safety and occupational health of employees at workplaces;* *9. able to motivate employees to use safe work methods, to fulfill their duties and tasks in labour protection.*
Final examination upon the completion of the study programme	*Bachelor Paper*

Study programme forms

Full time studies - 4 years - latvian

Study type and form	*Full time studies*
Duration in full years	*4*
Duration in month	*0*
Language	*latvian*
Amount (CP)	*160*
Admission requirements (in English)	*Secondary education*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Professional Bachelor`s degree in Labour Protection*
Qualification to be obtained (in english)	*Occupational Safety Engineer*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, CENTRA RAJONS, RĪGA, LV-1050

Part time studies - 4 years, 5 months - latvian

Study type and form	*Part time studies*
Duration in full years	*4*
Duration in month	*5*
Language	*latvian*
Amount (CP)	*160*

Admission requirements (in English)	*Secondary education*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Professional Bachelor`s degree in Labour Protection*
Qualification to be obtained (in english)	*Occupational Safety Engineer*

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, 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's study programme "Occupational Health and Safety at Work" (PBStP "OHS") (42862) is implemented within the study field "Internal Security and Civil Defence". The study program is accredited until 31.12.2024.Graduates of the study program "Occupational Health and Safety at Work" in the period from 2019 to 2022 obtained a professional bachelor's degree in occupational safety and a professional qualification "Senior Labour Protection Specialist". The qualification awarded corresponded to the "Occupational Standard for Senior Labour Protection Specialist" (approved on 15.09.2011).

However, there was a problem that under the current standard, the same qualification - Senior Labour Protection Specialist - was awarded to graduates of both Bachelor's (PQL 5) and Master's (PQL 6) programs. Therefore a new occupational standard "Occupational Safety Engineer" corresponding to PQL 5 was approved at the meeting of the Tripartite Sub-Council for Professional Education and Employment on 8 June 2022 (aprooved 0n 08.06.2022).

Due to the adoption of a new standard "Occupational Safety Engineer" in accordance with PQL 5, the qualification to be awarded by the PBStP OHS at the time of accreditation has been changed from "Senior Labour Protection Specialist" to "Occupational Safety Engineer".

The development of the Occupational Safety Engineer standard took several years and the PBStP OHS Director Iveta Daugule participated in the working group, as well as other program lecturers. This allowed for timely updating of the study program and course content - revision of existing courses or changes to existing content. For example, the content of courses has been significantly changed.

- *Basic macroeconomics.* Revised from 2 to 3 CP and included in the 2019 study plan. The course has been expanded to provide students with a better understanding of macroeconomic issues in line with the professional standard.

- *Fundamentals of entrepreneurship.* Included in the 2019 curriculum as a general education course to promote understanding of entrepreneurship and to ensure that occupational health and safety measures are in line with the company's business objectives. This course is replaced by *Business Management and Entrepreneurship* 4 CP in the 2022 curriculum. This is based on student feedback and the requirements of the occupational standard. The content is significantly better adapted to the qualification to be acquired. The course has been developed and is taught by prof. Henrijs Kaļķis, a specialist in the field of occupational safety and health.

- *Hazardous equipment and use thereof.* Included in the 2019 curriculum, revised from 2 CP to 3 CP to ensure that students learn the requirements of the profession standard.

- *Electrical safety in the workplace.* Included in the 2019 study plan revised course from 3 CP to 2 CP. The change has been made as physical hazards and physics issues are covered in the physics course.

- *Indoor air quality.* From 2023 onwards, the plan includes a revision of the course from 4 CP to 3 CP. Changes made following content evaluation and student feedback.

The content of the program PBStP "OHS" and the changes made to it ensure that from the 2023/2024 academic year, graduates of the program will have mastered the requirements of the occupational standard "Occupational Safety Engineer" and be eligible for the qualification of Occupational Safety Engineer.

From 2022 I. Reinholds, who is also the Director of the Short-Cycle Higher Professional Education Study Program "Labour Protection", replaces I. Daugule, as the Director of PBStP "OHS".

The aims and objectives of the study program PBStP "OHS" have been updated, and the achievable results have been reassessed and updated in the form of knowledge, skills, and competences. The study objective has been updated by assigning the tasks to the role of a qualified occupational health and safety engineer, changing from the previously stated objective of training senior occupational safety engineers.

The objectives of the study program PBStP "OHS" have been updated in line with the qualification to be obtained as an occupational safety engineer.

According to the set objective, the achievable study results, knowledge focused on the establishment and maintenance of the occupational safety management system, identification of norms and requirements of normative acts and standards regulating labour protection, which are essential for occupational safety engineers working in companies whose occupational safety systems are regulated by the requirements of various standards, are updated. Skills and competences have also been updated, taking into account the involvement of occupational safety engineers in the maintenance of the occupational safety system.

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 training of occupational safety engineers at the level of the professional bachelor's degree fully complies with the highest strategic planning and development documents of the Latvian state, as well as with the subordinate normative acts regulating the Latvian higher education space and its quality, which in turn are subject to the Study Field (StF) "Internal Security and Civil Defence" (ISCD) and the corresponding PBStP "OHS". At the highest level, the StF and PMStP are in line with the priorities of the Latvian National Development Plan and the Latvian Sustainable Development Strategy 2030 - economic growth and human security, as well as the priorities of the Latvian Smart Specialisation Strategy: modern education, knowledge base, productive innovation system, polycentric development, aimed at promoting the long-term development of the economic sectors of the Republic of Latvia. This is closely linked to the LU Strategic Plan, which states "to offer new interdisciplinary or international programs of excellence for specially trained or motivated students".

The title of the PBStP "OHS" clearly and unambiguously indicates the program's affiliation to the

disciplines of civil protection and internal security, and is thus closely linked to the degree to be obtained in the result of the study program. The title is linked to the formulation of the main objective of the program, emphasising the occupational health and safety orientation of the title.

The title of the PBStP "OHS" is identified by the study program code 42862 according to the Latvian Classification of Education, which reflects the content of this study program, as the classification code 862 corresponds to the group of educational programs "Occupational safety and health", while 42 corresponds to the first cycle (second level) professional higher education (professional bachelor's degree).

The degree 'Professional Bachelor's Degree in Labour Protection' and the sixth (formerly fifth) professional level qualification 'Occupational Safety Engineer' correspond to the title of the program, including the relevant branch of science and focusing on current trends in labour protection and expertise in Latvia and Europe.

After completing the PBStP "OHS", graduates at bachelor level have acquired the necessary theoretical and practical knowledge of labour protection, work environment expertise, which is consolidated during the training practice and transformed into the skills of a qualified specialist. The title of the PBStP "OHS" and its content indicate the acquisition of modern and interdisciplinary knowledge, skills and competences in a specific sector, since in today's times of rapid technological development and change (Industry 4.0 and Industry 5.0) the labour protection of employees is of paramount importance - it focuses on people at work, human factors in the work process, the consequences of risks caused by occupational factors and safety techniques for maintaining workplace safety.

The PBStP "OHS" is open to applicants with secondary education.

The competition criteria for persons who have completed secondary education from 2004 onwards are the average of the centralised examinations (CE):

CE in Latvian; CE in Mathematics; CE in English or CE in French or CE in German

The LU does not require a certain level of CE for admission, but it should be noted that the following coefficients are applied to ensure comparability of CE results:

- a coefficient of 0.75 is applied to the examinations at the optimal level of content learning, equating them to the examinations at the highest level of content learning;
- a coefficient of 0.50 is applied to examinations at the general level of learning content, equivalent to examinations at the higher level of learning content;
- centralised examination results obtained before 2022 are equated with the optimal level of learning and are weighted by 0.75, equating them with the highest level of learning.

For persons who completed their secondary education before 2008, the centralised examination in mathematics may be replaced by the annual grade in mathematics (or the average grade in algebra and geometry) of the secondary school leaving certificate

Criteria for persons who completed their secondary education before 2004 (not included), for persons who completed their secondary education abroad and for persons who are exempt from taking the CE:

- average annual grade in Latvian language and literature;
- annual grade in mathematics (or average grade in algebra and geometry);
- average annual grade in compulsory subjects.

The admission criteria, the formulae for calculating the admission marks and the admission procedure are laid down in the admission rules for the current academic year and published on the

LU portal https://www.lu.lv/en/admission/admission-procedure/ .

The updating of the OHS courses of the PBStP facilitated the alignment of the first two years of the program (semesters 1-4) with the curriculum of the short-cycle higher professional education program "Labour Protection" ("LP").

Thus, after the development of the qualification work, or without completing this study program, the students of short-cycle higher professional education program "LP" have the right to start studies in the 5th semester (3rd year) of the professional bachelor study program "Occupational Health and Safety at Work" at the University of Latvia.

The scope of the study program, duration of implementation, parts of the study program and their scope, compulsory content, professional qualification, basic principles and procedures of evaluation and the scope of training practice, principles of implementation, etc. are regulated by the Cabinet of Ministers Regulation of 13 June 2023 No 305 "Regulations on State Standard of Professional Higher Education" and comply with the requirements set out in the Regulations.

The total amount of credit points (CP) in the PBStP "OHS" is 160 CP (240 ECTS), divided into general study courses (20 CP (30 ECTS)), basic theoretical courses (36 CP (54 ECTS)), professional specialisation courses (60 CP (90 ECTS)), practice (20 CP (30 ECTS)), free elective courses (6 CP (9 ECTS)) and bachelor thesis development (12 CP (18 ECTS)).

The content of the study program is fully in line with the professional standard "Occupational Safety Engineer". The content of the study program is fully subordinate to the achievement of the aim and objectives of the study program, as it includes general education study courses and specific training study courses, which ensure the conformity of knowledge, skills and competences with the acquired professional qualification and the national standard.

The implementation mechanism of the study program ensures the achievement of the learning outcomes. Study period: full-time on-site - 4 years and part-time on-site - 4 years, 5 months.

The content of the study program is competitive and relevant to the requirements of today's labour market.

The knowledge, skills and competences acquired in the framework of the PBStP "OHS" will enable the graduate of the study program to participate in the activities planned within the National Development Plan 2021-2027 in their practical working life and will ensure career development in the distant future.

3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.

The PBStP "OHS" is implemented in the field of study "Internal Security and Civil Defence", which currently includes the following study programs:

- Short-cycle higher professional education study program "Labour Protection";
- Master's study program "Working Environment Protection and Expertise";
- Doctoral study program "Human Factors, Occupational Safety and Health".

The content of the study program ensures that the occupational safety engineers it produces have a broad perspective on labour protection processes. The Study Program pays particular attention to the emerging risks in the workplace and to those harmful factors in the workplace that are yet to

emerge. Graduates of the Study Program will be able to qualitatively participate in the operation of new enterprises, as well as to perform duties in enterprises that are moving towards the improvement of technological processes, introducing automated, intelligent systems in their production, creating a modern production environment. At the same time, the knowledge acquired within the Study Program about the human body, its characteristics and ability to adapt to the working environment, allows graduates of the Study Program to create a suitable and safe working environment for the needs of the employee, ensuring the long-term preservation of the employee's working capacity.

PBStP OHS is fully responsive to labour market demand. In this regard, scientific institutes, ministries (RSU Institute of Occupational Safety and Environmental Health, Ministry of Welfare, Ministry of Health, Ministry of Environmental Protection and Regional Development, labour and environmental regulatory institutions (State Labour Inspectorate, State Environmental Service, State Environmental Bureau, Radiation Safety Centre, etc.), public organisations (Latvian Association of Labour Protection Specialists, Latvian Ergonomics Society, Latvian Employers Confederation, Latvian Free Trade Union Confederation) have been identified.

According to the institutions and information centres identified (Lursoft, etc.), the labour market is still not saturated. Employers are also interested in graduates, as shown by the large number of students whose higher vocational education is paid by the employer.

The relevance of the of PBStP "OHS" to the labour market demand is supported not only by the results of employers' surveys, but also by the feedback of professional organisations. Feedback from the Employers' Confederation of Latvia, the Free Trade Union Confederation of Latvia and other organisations - see Annex 30 (Available in the section of Other Annexes). In all surveys, the evaluation of the study field and the corresponding program is positive. Overall, the feedback from employers and professional organisations on graduates' preparation for the labour market is positive. The feedback stresses that there is a great need for such a training program, as the number of competent specialists in the field of occupational environmental protection is insufficient in the country. Employers mainly stressed the need to increase practical training in organisations in the course, emphasising the practical application of the various risk assessment methods.

The relevance of the Study Program to the labour market demand is substantiated by the feedback from Latvian companies, indicating the importance of the program in training new occupational safety engineers - Ltd "Brīvais vilnis", Ltd "Riga East Clinical University Hospital", Ltd "Cēsu Alus", etc.

Internship, course works, and bachelor theses have been developed in various Latvian and international companies such as AB Security, SIA "SCHWENK LATVIJA", AS Passenger Train, SIA "CEEWOOD", SIA Grindex, Riga State City Municipality, FN Serviss, etc.

Feedback from company management and labour protection specialists on students' bachelor theses in companies was positive, indicating that students had acquired the knowledge necessary for the job. Considering these companies are involved in many specific risks such as hazardous installations, various material science and engineering solutions, chemical pollution, explosive, fire hazardous environments, radiation safety and many other occupational risks, the evaluation of the company representatives and the successful completion of the students' bachelor theses confirm that the program meets the objectives set.

It is important to note that studies and research on labour protection and expertise are in line with the priority directions of Latvian science development (On priority directions of science for 2018-2021 - Cabinet of Ministers Order No 746; Protocol Cabinet of Ministers Order No 246 (14.04.2021) Science, Technology Development and Innovation Guidelines 2021-2027).

PBStP "OHS" covers the main priority research areas identified in the strategy of the LU: scientific excellence; study development; contribution to society; environment and governance; green thinking and sustainability; organisational culture. The content of the program is focused on professional training according to the standard of an occupational safety engineer.

The Study Program responds to a number of education priorities set by the European Commission: an economy that works for people; protecting the European way of life; a stronger Europe in the world; a Europe fit for the digital age. The scope of this Study Program is in line with the first priority of the European Commission Communication "New Priorities for European Cooperation in Education and Training" on building relevant and high quality skills and competences, focusing on learning outcomes, employability, innovation and civic engagement.

On this basis, graduates are able to perform their job duties professionally, working in companies and public institutions in various sectors.

Of the 2021 graduates, more than half (5 graduates) are included in the Register of Competent Professionals, while only two students do not work directly in the field of labour protection, but apply the acquired knowledge at work.

The students who continue working are employed in companies such as AE Partner, an international automation and control systems manufacturing company, various companies, SCHWENK LATVIJA, a cement manufacturing company, Ltd Reck, and some work in state institutions such as AS “Pasažieru vilciens”, the Emergency Medical Aid Service. On the other hand, some work in competent institutions such as Ltd "D Security", etc.

These data show that graduates of the study program are able to work in a wide range of companies and institutions, ensuring the maintenance of a comprehensive occupational safety system.

The contribution of the students can also be verified by visiting companies with students during training seminars, where graduates - company representatives demonstrate modern labour protection solutions implemented in the company, such as LEAN principles, risk assessment methods used, solutions for communication with the employer and company employees.

Graduates contribute to the study process by educating students through their experience in teaching seminars.

To further assess the contribution of graduates' knowledge to the development of enterprises, it is planned to prepare questionnaires and, starting in 2023, to survey employers more widely to assess employers' satisfaction with students' experience and knowledge.

The analysis of the results of graduate surveys is of key importance, providing data on the overall usefulness of the study program and recommendations for further improvement of the study process. Many of the graduates go on to work in the above-mentioned companies and public institutions, where they also developed traineeships, coursework and bachelor's theses, and student questionnaires were analysed at the end of their studies.

The final year student questionnaires are available to the Program Director if the number of students is greater than 3, due to the anonymity of respondents, so it was only possible to analyse the 2021/2022 questionnaires. For all responses, students have positively rated the knowledge acquired during their studies, including the competence of the teaching staff and the relevance of the program to the labour market.

The majority of students were satisfied with their study load. It should be noted that the study process in the last years, despite the various innovative solutions of the LU, was challenging for

both students and lecturers, as the restrictions of Covid-19 prevented the organisation of many practical training seminars in companies compared to the pre-Covid-19 period and it is planned that with the next study period it will be possible to increase the share of practical seminars.

Overall, the data collected in the surveys show that the PBStP "OHS" is fit for purpose, fulfils its function and is sustainable as it provides the labour market with labour protection specialists who have acquired professional knowledge and skills.

The results of the survey are summarised in Annex 5.

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 number of students matriculated in the PBStP "OHS" in the period from the approval of the program licence in 2019 to date during the reporting period is as follows:

- 4 students matriculated in 2019;
- 7 students matriculated in the 1st semester of 2020;
- 8 students matriculated in 1st semester of 2021;
- 2 students matriculated in 1st semester 2022;
- 6 students matriculated in 1st semester 2023.

Looking at the data, it can be seen that the trend has remained fairly high until 2022, with an average of 7 students per year enrolled in the program. The drop in 2022 could be due to the impact of the Covid-19 crisis. The trend increased in 2023 with 6 studentsinvolved, which is also due to the trend of short cycle graduates or 4th semester students expressing interest in the possibility of continuing their studies at PBStP "OHS", which is most often justified by the desire to gain more knowledge and experience provided by the study program.

Number of students graduating from the study program:

- In the academic year 2021/2022, 11 students defended their bachelor theses, obtaining a professional bachelor's degree in labour protection and a professional qualification of senior labour protection specialist;
- In the academic year 2022/2023, one bachelor thesis was defended, leading to a professional bachelor's degree in labourl protection and the professional qualification of senior labour protection specialist;
- In 2023/2024, four students are expected to defend their bachelor theses leading to a professional bachelor's degree in labour protection and a professional qualification of occupational safety

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 program "Occupational Health and Safety at Work" is designed in accordance with the Regulation of the Cabinet of Ministers of 13 June 2023 No 305 "Regulations on the State Standard for Professional Higher Education" (Only in Latvian) and complies with the requirements set out in the Regulations.

The study program comprises all three parts designed in accordance with the education standard:

Compulsory -148 CP (222ECTS)

Restricted elective - 6CP (9ECTS)

Optional part - 6CP (9ECTS)

The relevance to the educational standard is described in more detail in Annex 17.2.

The program is aimed at preparing occupational safety engineers for the Latvian labour market. In the process of developing the program, graduates of the short cycle (level 1) professional higher education study program Labour Protection were surveyed and it was found that they had jobs available but no opportunities to continue their education at a higher level in their chosen profession. Of the 25 graduates (2017) surveyed, 93% expressed a desire to continue their education at bachelor level and obtain a higher qualification, while 41% of respondents indicated that they would also like to obtain a professional master's degree in labour protection in the future. It also led to the activities in the establishment of the program in line with the LU Action Plan for the implementation of the Strategy, which states that it is necessary to ensure "the attraction of undergraduate students to higher-level studies at LU". The PBStP OHS has been developed in close connection with the Short-cycle professional higher education program "Labour protection" implemented by LU. Given that the first 4 semesters of both programs are linked in terms of content and are implemented jointly, this has allowed to optimise the costs of both programs and to attract more experts in the field as guest lecturers. At the same time, students appreciate the possibility to change their chosen study program after the start of their studies if they find that their current working or social conditions require such an adjustment. Students have both chosen to switch from a short-cycle program to a professional bachelor's program because it offers higher qualifications, and to switch from a professional bachelor's program to a short-cycle program because it allows them to start their professional career sooner. Similarly, students who have completed a short cycle program return to continue their study of labour protection at bachelor’s level.

In accordance with the Regulation of the Cabinet of Ministers of 13 June 2023 No 305 "Regulations on the State Standard for Professional Higher Education" the programme includes 20 CP of general education courses, including a 6 CP module of professional competence in entrepreneurship, theoretical core courses in the field (professional field) and a course in information technology, totalling 36 credits. Of the professional specialisation courses in the field, a total of 66 credits are offered, of which 54 CP are included in the compulsory part of the program and 14 CP in the restricted elective part. The compulsory part of the program includes 3 coursework assignments (6 CP). The program also includes 6 CP of elective courses, as required by the national standard. The practice (20 CP) is divided into 3 parts and the bachelor thesis 12 CP. The Bachelor program also includes courses in Environmental Protection (1 CP) and Civil Protection (1 CP).

The program includes three course works that allow students to analyse literature, interact with employers and develop their practical and research skills. Coursework I "Practical and theoretical aspects in the context of occupational health and safety at work", in which the student audits the organisation to identify the main risk factors in the working environment, analyses legislation and literature data on risks, accidents and occupational diseases specific to the chosen sector.

Course work II "Work environment risks, theoretical and practical aspects of their identification" In the course work the student assesses work environment risks according to the knowledge acquired in other courses, applies qualitative and semi-quantitative methods, performs indicative measurements or updates their necessity, assesses practical necessary improvements, draws up recommendations for improving the safety of the work environment. Assesses the risks in the working environment and carries out an analysis of the scientific literature and existing legislation and an audit of the risks in the working environment in the enterprise.

Together with the supervisor, the student carries out a safety and quality analysis of the company and develops a preventive action plan using risk assessment methods and measurements. Assesses the risks in the working environment and carries out an analysis of the scientific literature and existing legislation and an audit of the working environment risks in the company.

Coursework III "Organisation of internal monitoring of the working environment" - the student carries out a literature analysis of methods and standards for implementing a quality system; evaluates at least one quantitative method model by applying it to the assessment of risks in the working environment and develops recommendations based on the methods and models learned in the course for improving the efficiency and occupational safety of enterprises.

Students will also develop their practical skills and competences by working under the supervision of experts in training placements and will complete a bachelor's thesis involving the analysis of real risks in the working environment of a company or institution, the design of a safe working environment and the drawing up of prevention plans, as well as the practical application of management knowledge and competences.

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.

Oral, written, and combined study and assessment methods are used during the study courses and examinations.

The studies use a variety of methods to acquire and consolidate knowledge, such as introductory lectures, interactive lectures, summary lectures, and problem-oriented lectures. Practitioners, professionals from different institutions are invited to lecture on individual courses in order to promote the coherence of theory and practice. Practical assignments, seminars, individual, pair and group work, discussions and project development, study excursions to industry organisations are widely used. Employers are involved in the implementation and development of study courses (invited to lead individual seminars, often organised as exchange visits to workplaces, etc.).

To foster the development of students' research competences, students have the opportunity to analyse and study in depth problems of interest to them in the field in a succession of courses. Senior students are involved in peer teaching-learning.

Seminars in the courses foster students' speaking, presentation and discussion skills.

In order for students to achieve the learning outcomes - to acquire and consolidate knowledge, skills and develop competences - the study process is dominated by methods in which student activity plays an important role. The study process uses methods that promote students' communication in performing study tasks, solving real problems in the field, modelling situations.

The physical environment is also gradually changing: classrooms can be easily converted for group work, individual work, and students can use digital technologies. Lecturers mostly use methods that encourage students' active participation, critical thinking and reflection. The e-learning environment will be used to support the learning process and independent study. An e-learning environment (Moodle) has been created for each study course, where students have access to lesson materials, assignment descriptions in addition to study materials related to the course topics, as well as study assignments (tests, forums, seminars, conferences, etc.). All mid-term and final examinations, with the reasons for the mark, are recorded and made available to students in the e-learning environment.

The student-centred approach is followed when updating study programs and their study courses, with special attention paid to the meaningful formulation of study outcomes, thus promoting dialogue between lecturers and students on study content, forms of organisation and methods. Correctly formulated learning outcomes, in turn, promote students' understanding and self-responsibility for their own learning, self-assessment and understanding of the assessment received. In the study process, lecturers use methods, forms of examination and assessment criteria that are appropriate to the aim of the study and the planned study outcomes.

Students receive support and feedback from lecturers during their studies. The assessment criteria for grading are published in advance. Assessment provides an opportunity for students to

demonstrate the extent to which they have achieved the expected learning outcomes.

The principles of student-centred education promote student mobility (recognition of study results), and students engage in research and social activities in the community initiated by academic staff, thus gaining significant experience in putting what they have learned in their studies into practice. Through the internal quality assurance policy, study programs are implemented in such a way that students are encouraged to actively participate in the development of the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. The results of student surveys are evaluated and taken into account in the development of the study process. Students willingly express their suggestions for the improvement of study programs and the process in discussions with lecturers, program directors.

Student surveys are also taken into account in the study process, and the results are compiled and discussed with course lecturers each year. Before each semester, discussions are held with the course lecturers to facilitate the revision of the study courses in order to improve the study process by updating the content of the required reading and lecture material and modernising the presentation formats.

The exchange of experience between lecturers is an important factor in improving the study process. One of the forms of mutual learning is the peer observation, which allows the lecturers not only to participate and evaluate the lectures of other lecturers, but also to gain new insights into modern methods of lecturing.

The Covid-19 study program was taught both face-to-face and remotely during the epidemic. During this time, students were provided with lectures in MsTeams, Zoom environment, as well as in some courses a new application Big Blue Button, introduced by the LU, facilitating the connection of students and guest lecturers.

The ratio of face-to-face to distance mode varied depending on the national situation and the relevant decisions of the LU management. During this period, lecturers also made extensive use of the possibilities to deliver seminars remotely, and after lectures, students could use MS Teams, Zoom to provide feedback on the content of the lecture, ask questions and provide feedback on the content of the lecture. Student evaluations were discussed with the Program Director and suggestions were taken into account in the development of the content or format. For example, by facilitating more seminars, encouraging student involvement in problem analysis, presenting independent work on selected topics, including group work on the analysis of specific problems.

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 internship is provided in accordance with the University of Latvia Student Internship Organisation Procedure. The aim of the internship is to strengthen the theoretical knowledge acquired during the studies in practice, to gain an understanding of the establishment and

maintenance of a labour protection system in a company.

The PBStP "OHS", in accordance with the requirements of the educational standard, includes three placements during which students improve and demonstrate the knowledge acquired in the program.

The internship regulations, which are the basic document for the organisation of the internship, have been drawn up in accordance with the requirements of the Cabinet of Ministers' Regulations and include three internships:

- Practice I- 8 CP (12 ECTS)
- Practice II- 6 CP (9 ECTS)
- Practice III- 6 CP (9 ECTS)

Practice I is carried out in the 2nd semester of studies, when students have acquired a basic knowledge of the legislative requirements, the basic principles of risk assessment, which includes initial risk identification and the overall occupational health and safety system

Consequently, the objectives of Internship I include the identification of the occupational health and safety system of the enterprise or institution and participation in its processes, including employee briefings, compulsory health checks and workplace risk assessments, carrying out a risk assessment of the working environment for a particular type of work or site.

Practice II is implemented in the 4th semester of studies, when students also become more familiar with the risk factors of the working environment in different sectors, have in the previous semester taken additional courses in ergonomics, electrical safety assessment, etc., which allow a broader assessment of the working environment in the chosen company.

During Practice II, students continue to apply and demonstrate their improved knowledge by becoming more deeply involved in the assessment of the occupational health and safety system in relation to the worker, assessing the findings of the OHS cards in more detail, identifying and analysing the occupational health and safety situation of the company, analysing possible cases of occupational diseases or their likelihood and developing preventive measures. Where necessary, jobs requiring compulsory vaccination are identified. In parallel, Practice II is carried out with coursework I, during which more scientific research is carried out on these issues, while Practice II focuses specifically on practical tasks.

Practice III is implemented in the 7th semester of studies. During the placement the student gets acquainted with the company's labour protection system in depth on issues directly related to the working environment, gets acquainted with the company's labour environment risk assessment, participates in the planning and conducting of the annual labour environment risk assessment. Prepares proposals for premises, work processes where measurements may be necessary and justifies the need for them. Basing on the information obtained from the risk assessment, prepares proposals for the selection and application of collective and personal protective equipment.

The internships are designed so that each successive practice builds on the knowledge acquired during the course of study prior to, or during, the practice. This ensures a direct link between the tasks of the placement and the knowledge, skills and competences acquired during the study process. The learning outcomes of the internship courses fully cover all 9 learning outcomes of the PBStP "OHS" (see Annex 20.2 Mapping of study courses).

Internships are organised in companies from different sectors. The practice work has strictly defined aims and objectives. At the end of the Internship, the student submits a report reflecting the assigned duties and the results of the work with a feedback from the placement supervisor (company representative), which assesses the student's work, activity, independence and ability to

cope with the assigned placement task and to contribute new ideas. The report must be defended and is evaluated with a mark.

The Internships planned within the study program are directly aimed at identifying situations in real companies, evaluating and proposing economically and process-based solutions that comply with regulatory requirements. The main emphasis is on employee briefings and training, occupational health measures, and workplace risk assessment and management. The topics of the Internship are integrated with the topics of the coursework, thus encouraging the student to study these issues from both practical and theoretical perspectives.

The students' evaluation of the Internship in the autumn semester is 6.25 out of 7 possible points, thus evaluating both the content and process of the Internship and its place.

The student defends the Internship work in an open discussion with the internship assessors (the committee) and the Internship work is evaluated with a mark.

The Program Director offers students placements based on cooperation with companies in different sectors.

The Internship Defence Commission includes practitioners with long experience in labour protection, e.g. Māra Vīksne (Ministry of Welfare), Linda Matisāne (State Labour Inspectorate), Linda Elstiņa (A/S Cēsu Alus), Māris Dambis (ltd "INSALVO"), Aija Mortukāne (ltd "Valsts nekustamie īpašumi"), etc.

Table 3.2.4.1. Employers' support in organising student Internship

Institution with which the contract is concluded	**Contract or letter of support for student placements**
Latvian Free Trade Union Confederation	Contract, letter of support
Ltd. “Skonto Fiziskā Apsardze””	Contract
Ltd. “LarixWood”	Contract
Ltd. “Vides serviss”	Contract
Ltd. “Agro Property Invest”	Contract
Ltd. “BB Būve”	Contract
Ltd. “MK SAFE”	Contract
Ltd. “Agro Vatrane”	Letter of support
Ltd. “Grif”	Letter of support
a/s “Cēsu alus”	Letter of support
a/s “Brīvais vilnis”	Letter of support
a/s “Rīgas piena kombināts”	Letter of support
Ltd. “Rīgas Austrumu Clinical University Hospital ”	Letter of support
Emergency Medical Service	Letter of support
Ltd “Agro Vatrane”	Letter of support
a/s Grindeks	Letter of support

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.

Data on the first graduates defending their bachelor theses in 2022 are analysed. One graduate defended in 2023. Four graduates are expected to defend in 2024.

In 2022, all 10 of the 10 bachelor theses submitted for defence have been successfully defended. The themes of the defended theses are relevant to the sectors and the labour market in general. The grades received range from 6 to 10, with three of the submitted theses being defended with an 'excellent' grade. The themes of these papers are "Improvement of the occupational health and safety system at Schwenk Latvija SIA using LEAN approaches", "Noise in the working environment and its impact on employees at the Cewood woodworking company", and "Physical risk factors in the working environment for Emergency Medical Service crews.

Other topics included current psycho-emotional risk factors (2 papers), organisation of remote working (3 papers), ergonomic risk factors (2 papers), injuries at workplace (1 paper).

The student survey shows that students have an understanding of the requirements placed on them and how the final assessment of the work is formed. The score for this statement is 6.67 out of 7.

The topic of the bachelor thesis of the 2023 graduate was dedicated to the assessment of work environment risks, especially chemical factors in the fuel production process. This is one of the most important sectors in Latvia. The thesis received a positive evaluation (7 points (good)) and involved a lecturer from the Faculty of Chemistry of the University of Latvia, a specialist from Latvijas gāze, as well as experts in the field of chromatography from the Faculty of Chemistry of the University of Latvia in the experimental work.

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.

All the resources available to the LU and the Faculty of Chemistry are available for the implementation of the PBStP "OHS". A detailed outline is presented in the Self-Evaluation Report of the Study Field "Internal Security and Civil Protection", Part II, Chapter 2.3, paragraphs 2.3.1-2.3.4.

The infrastructure for the study process is available - well-equipped lecture halls, as well as well-equipped faculty laboratories for practical work at the Academic Centre of the LU, where all faculties involved in the implementation of the program will actually be located together. The

Academic Centre also provides students with access to all the necessary equipment and facilities for their research work, using the resources of the research institutes of the University. The Faculty of Chemistry and the Institute of Chemical Physics Institute have equipment available to students, and within the framework of the cooperation, students use the equipment of the Faculties of Biology and Physics, Mathematics and Optometry.

Annex 29 (available in the section Other Annexes) lists the equipment available at the LU and the Faculty of Chemistry that is used for study work, demonstrations, student use, practices, and qualification work related to labour protection issues. For example, equipment is available to students for making indicative measurements of microclimate, lighting, and vibration factors in the working environment and, as part of the study courses, the correct use of this equipment, making measurements, interpreting and processing the results, using modern methods of risk assessment of the working environment is demonstrated.

The courses devoted to ergonomic studies of the working environment demonstrate the use of measuring equipment for the objective measurement of the ergonomic and health status.

Other types of equipment are also available for students to use for the characterisation of powdered substances, as well as for the measurement of liquid solvents and gases in air samples for student placements and qualifications.

Students are introduced to this equipment in the Chemicals and their Safety course and in other courses.

Students and lecturers of the University of Latvia have access to modern multidisciplinary bibliographic information and citation database platforms such as SCOPUS, Web of Science, multidisciplinary e-journal and e-book databases such as ScienceDirect, SpringerLink, Wiley, etc., which are listed on the University's website:https://www.biblioteka.lu.lv/en/resources/subscribed-e-resources/.

The databases are used both for updating course information and for students' mid-term and final papers.

The program director regularly organises seminars for students, tasks for searching scientific publications in the available scientific databases of the University, which improves students' practical experience in working with scientific databases, preparing course works and final - bachelor thesis.

The Library of the University of Latvia, as the largest library of Latvian universities, provides wide access to information resources according to the study programs and research directions of the University of Latvia. The Library's collection consists of about 1.7 million items of information resources, which are available to users in the branch libraries of the University Library:

- Library in Aspazijas blv.
- Library in Kalpaka blv.
- Library in Raiņa blv.
- Library of Natural Sciences
- Faculty of Physics and Mathematics Library
- Humanities Library
- Educational Sciences and Psychology Library
- Faculty of Social Sciences Library

The libraries share a common catalogue, which also includes other resources from the National and University Libraries. There is a good mutual information exchange and order delivery system between the LU libraries and the LU branch libraries.

The Natural Sciences Library, which contains the literature required for the program, is available in the Academic Centre of the University and the library facilities are fully suitable for permanent work and individual study.

Students have access to a wide range of literature sources in the library catalogue and in databases available to students in their field: Scopus, Web of Science, ScienceDirect, SpringerLink, Oxford Journals, etc.

The Library digitises items from the Library's collection and from materials provided by the client. The LU Library provides all stages of the digitisation process: scanning, processing of scanned documents, creation of archive files, application files and long-term preservation. We follow the basic principles of digital reproduction. The following infrastructure is provided for digitisation: scanners Bookeye 3, Kabis, Skyview and Epson GT-20000.

The LU normative documents stipulate that all study courses must have e-courses. e-Courses allow easy distribution of lecture materials to students, communication with students within the course, receiving and discussing submitted work. All students receive access to the LUIS information system immediately after signing the study contract, where the student can track his/her grades (grades are also in the e-course) and receive all the information necessary for their studies.

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).

Financial calculations for FTregular studies

During the reporting period, there were no students from the FTreg. (full-time regular) study programme. The study program has been implemented for 9 semesters (4.5 years) for PTreg. (part-time regular) students during the reporting period.

Tuition fees for FTreg. and PTreg. students are the same at €17,000 per year. Based on the fact that only PTreg. students are currently enrolled in the program, the calculations are based on the potential attraction of FTreg. students after the accreditation of the program.

Program income

For the implementation of the professional bachelor's study program "Occupational Health and Safety at Work", the University of Latvia uses tuition fees. An overview of the planned breakdown by type of study and annual income is presented in Table 3.3.3.1.

Table 3.3.3.1.

Number of students and annual income

Type of studies	LV Paid	EU/EEA/SC* paid	Total	Paid LV and EU/EEA/SC citizens	Annual income
	number	number	number	EUR	EUR
FTreg.	40	0	40	1700	68 000
Total			**40**		**68 000**

* EU/EEA/SC – European Union/ European Economic Area / Swiss Confederation

Program costs

To estimate the amount of funds needed for financial support, the LU calculates the cost of study programs according to a methodology developed by the LU, which takes into account the costs of providing the study process as described in the section "Financial Support for the SF" and information on the study program plan, the teaching staff involved, the planned number of students, etc., thus ensuring the reliability of the forecasts.

Program costs for **full-time regular studies (FTreg.)**

For the calculation of the Occupational Health and Safety at Work study program, the FTreg. promoters expect 40 students to study the program, and use the study plan/norms and the structure of the academic staff involved. Based on these data, the total annual cost of the program is EUR 67 200 and its structure (percentage breakdown) is shown in Table 3.3.3.2.

Table 3.3.3.2.

Percentage breakdown of costs in the study program

Expenditure line	**% of total**
Teaching staff costs	57%
General staff	5%
Other costs	0%
Infrastructure costs	10%
Property and services	2%
Indirect costs	26%
TOTAL COSTS	**100 %**

Figure 3.3.3.1 visually shows the cost of the study program (vertical axis) depending on the number of students (horizontal axis) with a red line and the weighted average tuition fee (green line).

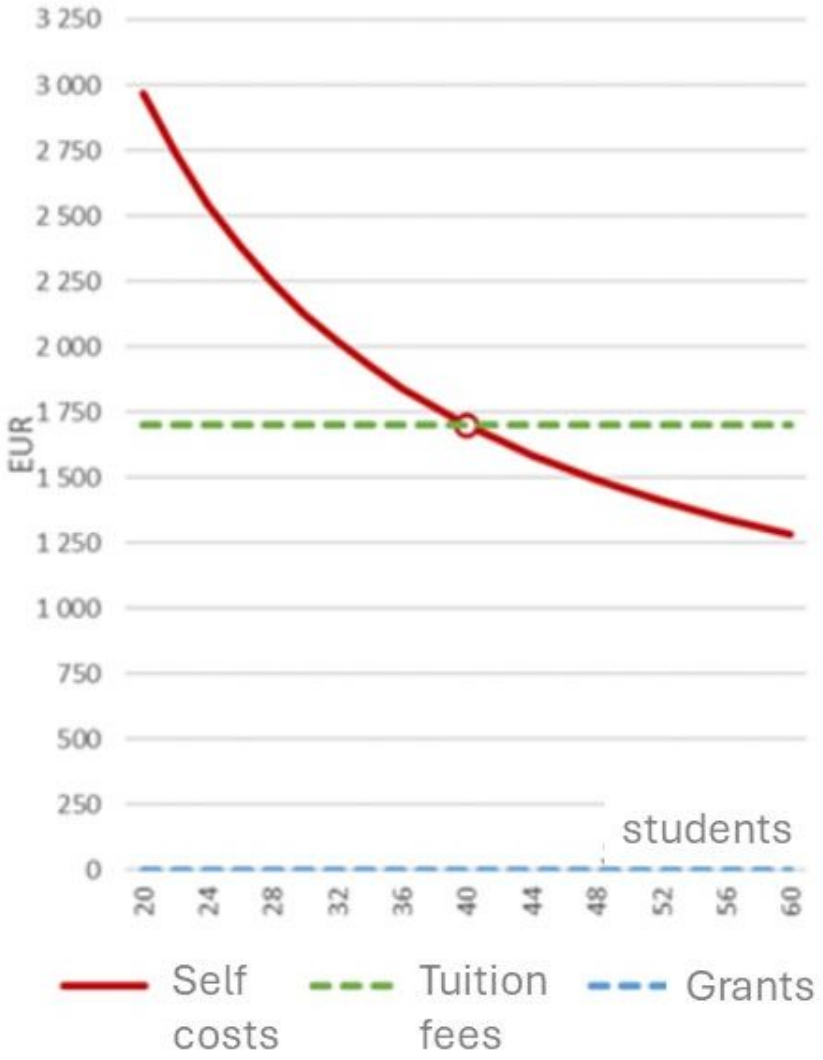

Figure 3.3.3.1. ***Cost of study program "Occupational Health and Safety at Work" per number of students***

Based on the cost structure and the total number of students of 40, the cost of the program per student (cost-price) is €1678 per year.

For the program to be cost-effective, the minimum number of fee-paying students must be at least 40 (intersection of red and green lines).

Summary of program income and costs

Table 3.3.3.3 summarises the projected number of students, program revenue, expenditure, outcome and profitability (outcome to revenue, %) by all forms of delivery.

Table 3.3.3.3.

Result of the Programme

Type of studies	Total	Annual income	Annual expenditure	Result	Profitability

	skaits	EUR	EUR	EUR	%
FTreg.	40	68 000	67 200	800	*1.2%*
Total	**40**	**68 000**	**67 200**	**800**	***1.2%***

Conclusion:

The study program "Occupational Health and Safety at Work" is cost-effective. In general, the projected income exceeds the expenditure and does not require support from other financial resources.

Financial calculations for PTreg.

Program income

For the implementation of the Professional Bachelor's study program "Occupational Health and Safety at Work", the University of Latvia uses tuition fees. An overview of the (planned) distribution of students by type of study and annual income is presented in Table 3.3.3.4.

Table 3.3.3.4.

Number of students and annual income

Type of studies	LV paid	EU/EEA/SC* paid	Total	Fee for LV and EU/EEA/SC citizens	Annual income
	number	number	number	EUR	EUR
PTreg.	45	0	45	1700	76 500
Total			**45**		**76 500**

* EU/EEA/SC – European Union / European Economic Area / Swiss Confederation

Program costs

In order to estimate the amount of funds required for financial support, the LU calculates the cost of study programs according to a methodology developed by the LU, which takes into account the costs of providing the study process as described in the section "Financial Support for StF" and information on the study program plan, teaching staff involved, planned number of students, etc., thus ensuring the reliability of the forecasts.

Program costs for **part-time regular (PTreg.) studies**

For the calculation of the study program "Occupational Health and Safety at Work" PTreg. implementers use the data for the academic year 2022/2023 - the number of students as of 01.10.2022, the study plan/norms and the structure of the academic staff involved. Based on these data, the total annual costs of the program are EUR 75510 and their structure (percentage breakdown) is shown in Table 3.3.3.5.

Table 3.3.3.5.

Percentage breakdown of costs in the study program

Expenditure line	**% of total**
Teaching staff costs	57%
General staff	5%
Other costs	0%
Infrastructure costs	10%
Property and services	2%
Indirect costs	26%
TOTAL COSTS	**100 %**

Figure 3.3.3.2 visually shows the cost of the study program (vertical axis) depending on the number of students (horizontal axis) with a red line and the weighted average tuition fee (green line).

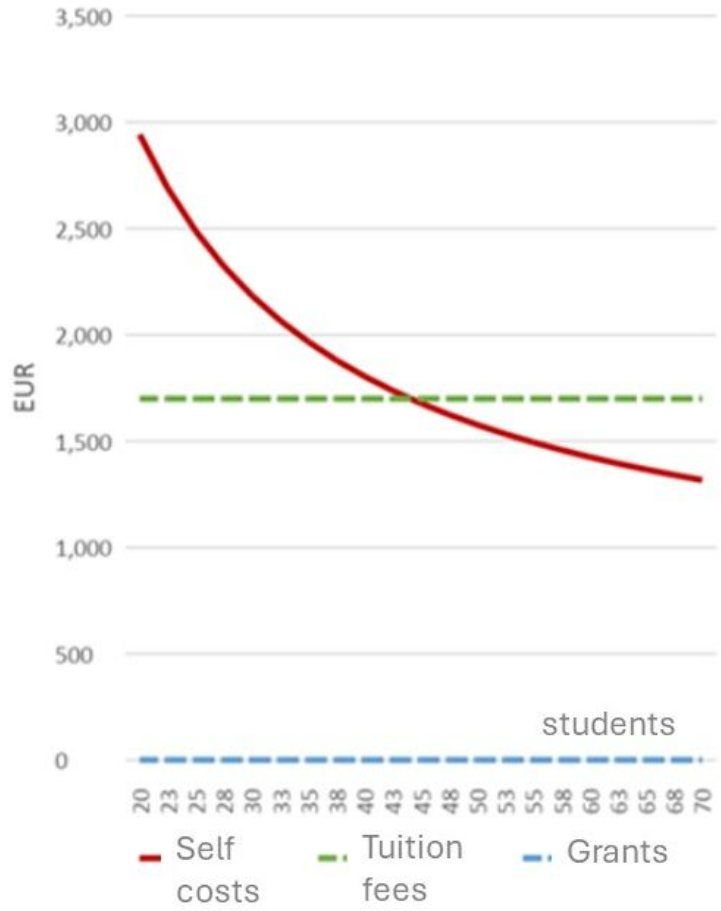

Fig.3.3.2. **Cost of study program "Occupational Health and Safety at Work" per number of students**

Based on the cost structure and the total number of students 45, the cost of the program per student (cost-price) is €1678 per year.

For the program to be cost-effective, the minimum number of fee-paying students must be at least

45 (intersection of red and green lines).

Summary of program revenue and costs

Table 3.3.3.6 summarises the projected number of students, program revenue, expenditure, outcome and profitability (outcome to revenue, %) by all forms of delivery.

Table 3.3.3.6.

***P*rogram results**

Type of studies	Total	Annual income	Annual expenditure	Result	Profitability
	number	EUR	EUR	EUR	%
PTreg.	45	76 500	75 510	990	1.1%
Total	**45**	**76 500**	**75 510**	**990**	**1.1%**

Conclusion:

The study program "Occupational Health and Safety at Work" is cost-effective. In general, the projected income exceeds expenditure and does not require support from other financial resources.

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 selection of the faculty members involved in the implementation of the PBStP "OHS" is based on their competences and experience in the relevant sciences, as well as their relevance to the professional work environment.

The study courses of the program are taught by the faculty members elected by the LU from the Faculties of Chemistry, Biology, Geography, Business Administration and Economics, etc., as well as by the faculty members from other universities (e.g., from RTU - lecturer Aleksandrs Grigorjevs) or companies (e.g., guest lecturers D. Garais, A. Mortukāne) and State Administration Institutions (S. Zariņa), as well as from other LU faculties (e.g., prof. H. Kaļķis, prof. A. Batraga, assist.prof. J. Burlakovs, assoc.prof. V. Vezis, etc.). The selection of the teaching staff involved in the study program is based on their academic experience, qualifications and scientific research activities. Of the academic staff involved in the program, 59% have a doctoral degree and 38% have a master's

degree, which indicates that the qualifications of the academic staff are fully in line with the programme requirements and ensure the necessary quality of studies (see Table 3.4.1).

The academic staff consists of full-time and part-time lecturers of the Faculty of Chemistry of the University of Latvia. All lecturers of the Faculty of Chemistry involved in the implementation of the study program also participate in the implementation of bachelor, master or doctoral programs. Organisational issues, including lesson planning and cooperation with students, are dealt with by the study program director, together with the Dean and Secretary of the Faculty of Chemistry, the head of the field of study, who maintains contacts with the administrative structures of the University.

Lecturers and guest lecturers - practitioners without a PhD degree - provide practical classes, seminars for the students of the study program. The qualifications of the teaching staff fully meet the requirements of the study program and its aims and objectives.

Table 3.4.1.

Teaching staff involved in the implementation of the PBStP OHS (up-to-date data at the time of submission of the self-evaluation report)

Degree Position	**PhD**	**Master's degree**	**2nd level Bachelor's degree**	**Total**
Professors	5			**5**
Associate professors	7			**7**
Assist. professors	7			**7**
Lecturers	1	6		7
Part-time lecturers	2	8	1	**12**
Total	**22**	**14**	**1**	**37**

Faculty involvement in research is also taken into account, so that students are given an insight into the latest scientific research and have the opportunity to produce high quality dissertations. The qualifications of all the selected teaching staff are relevant to the program (see CV and list of publications in the Annex).

The teaching staff regularly participate in scientific seminars, conferences and exchange trips.

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 have been changes in the composition of the teaching staff during the reporting period compared to the previous reporting period 2019. The changes in the composition of the teaching staff of the PBStP "OHS" during the reporting period are mainly attributable to the updating of the program content, taking into account the latest trends in the field of occupational safety and health and the involvement of experts in the teaching of courses.

For example, the course " Labour Protection Legislation" is taught by S.Zariņa, Head of the Methodological Management and Competence Development Department of the State Labour Inspectorate. After listening to the course, the second year students have positively assessed the professionalism of the guest lecturer and her knowledge and understanding of occupational safety issues.

The courses "Fire Safety" and "Electrical Safety" are taught by guest lecturers O. Sņegovs, D. Garais and U. Karlsons. The guest lecturers have both teaching experience and practical experience, providing students not only with theory, but also with practical guidance in assessing fire and electrical safety risks, in developing planning works so that, based on examples and their analysis, future occupational safety specialists can plan effective preventive measures. This has been positively evaluated by the students.

Based on the students' wish to have more assessment methods in the Nanotechnology Safety course, this course has been taken over by I. Reinholds from 2022. The students appreciate the practical exercises on risk assessment of nanomaterials.

The teaching of the course "Biological risks and biosafety in the working environment" was taken over from assoc. prof. V. Nikolaeva has taken over prof. c, attracting the teaching of some topics in the course of assoc. prof. G. Deksne and guest lecturer, Dr.Biol. D.Kļaviņš. The students have appreciated the knowledge acquired thanks to the team of lecturers on biosafety, especially in relation to the planning of preventive measures in laboratories and production plants.

Practitioners - professionals in their field, such as L.Matisāne, M.Dambis, A.Mortukāne, L.Elsiņa, S.Zariņa, O.Sņegovs, A.Cars, D.Garais, I.Kristone, U.Karlsons, are involved in teaching the courses and in the work of the defence commissions. In this way, students receive essential suggestions for practical problem solving both when defending their course, practice and bachelor's theses, as well as during the study process.

In recent years, the overall course content has been adjusted according to the results of student surveys and the influence of various factors. Thus, from 2022, the Civil Protection course will be taught by Dr. med. R.Ražuks, who has also taken over the First Aid I course, which was previously taught by an hourly lecturer, on the basis of competences. Based on student feedback, Dr. Razuk's experience has ensured the improvement of the course.

Compared to the previous reporting period in 2019, there has been a change in the distribution of teaching staff related to academic qualifications in Table 3.4.2. The changes in teaching staff are mainly related to updating courses and improving the content in line with the assessment of student feedback.

Table 3.4.2.

Teaching staff involved in the implementation of the PBStP OHS (up-to-date data at the time of submission of the self-evaluation report)

Degree Position	**2019**	**2022**

Professors	3	4
Associate professors	7	7
Assist. professors	9	7
Lecturers	6	7

For example, H. Kaļķis was elected to the academic post of professor. E. Pajuste and I. Reinholds have been elected to the posts of associate professors. As mentioned above, for some courses, such as "Biological risks and biosafety in the working environment", the lecturer has changed from associate prof. V. Nikolaeva to prof. Ozoliņa-Molla, who has attracted new lecturers to teach certain topics on biosafety and other areas.

The assistant professor of the course "Civil Protection" has joined the assist. prof. R. Ražuks. Thus, the reduction in the number of lecturers with the change of academic qualifications of lecturers has remained in balance with the previous period.

The involvement of specialists in the field and the proportion of academic staff has increased significantly compared to when the program was merged with the University of Latvia. Such changes had a positive impact on the implementation of the study program in terms of the use of a unified methodological approach in studies and their organisation, while at the same time the involvement of practitioners in the teaching process remained unchanged. In recent years, the study program has been joined by D.Garais (industry expert, representative of Ventspils Nafta Termināls), A.Grigorjevs (guest lecturer in the first level program and independent lecturer in the higher-level bachelor program), A.Mortukāne (head of the Labour Protection Association at Valsts Nekustamie īpašumi), etc.

In general, it can be concluded that the composition and changes of the teaching staff involved in the PBStP "OHS" are positively evaluated, thus ensuring a high quality of education and are appropriate for the achievement of the study courses and the overall study results of the program. This is also reflected in the feedback from students and graduates.

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).

Faculty collaboration is important to ensure that the program's faculty members can jointly develop and implement the intended study plan that meets the requirements of the OHS industry and occupational standards, as well as the needs of the students. The faculty members of the PBStP "OHS" regularly collaborate and adjust the course content as necessary to ensure that all relevant aspects related to work environment protection and expertise are included in the study program.

The cooperation of the teaching staff involved in the implementation of the PBStP "OHS" is continuous, for example, regularly - twice a year - all the lecturers of the program are invited to the meetings of the Board of "Internal Security and Civil Defence" and issues related to the study and methodological work are discussed. This ensures the interconnection of study courses and prevents overlaps in the content of study courses. The content of the study program and individual study courses is discussed at the meetings of the Board of the field of study.

To facilitate the cooperation of the Faculty of Chemistry teaching staff in the study field "Internal Security and Civil Defence", the head of the study field together with the directors of the study program organises monthly meetings, including information on methodological work and on topical issues related to the improvement of the study course content, organisation of lectures and seminars, e-learning development, inclusion of the latest literature in the study courses. Meetings are held in person or on the MS-Teams platform.

Recently, the issue of improving course descriptions, content and materials in the e-learning environment has been raised. The Department of Information Technologies of the LU regularly offers e-learning training seminars for lecturers "Improvements of the e-learning environment or Moodle". Several discussions on these issues were held within the framework of the FChem in order to enable the lecturers of the study program to make full use of the e-learning possibilities in their courses.

The cooperation of teaching staff is also manifested in the peer observation of classes in order to improve the study process and increase the quality of classes (e.g. I. Daugule and D. Garā lectures were observed by assoc. prof. Ž. Roja, the lecture and seminar of assistant prof. I. Reinholds was visited by prof. H. Kaļķis,). Regular peer-observation of teaching staff also takes place during the election process for academic positions. During the mutual attendance of classes, experiences are exchanged and teaching methods are discussed. This practice allows enriching the teaching methods and styles of each member of staff.

The evaluation of the cooperation between the faculty members of the PBStP "OHS" and the student-faculty ratio are important factors that can influence the quality and effectiveness of the study program. At the moment of preparation of the self-assessment report (01.01.2023) 26 students are registered in the information system of the LU in the bachelor study program "OHS", which constitutes a faculty-student ratio of 26 / 38 = 0.68 faculty members per student. This ratio is considered to be very good and appropriate for bachelor level studies, as on average there is at least one lecturer for each of the two students. This allows us to conclude that the study process allows for an individual approach to each student and ensures that students understand and master all relevant aspects of the study program.

In general, it can be concluded that the cooperation between the teaching staff involved in the PBStP "OHS" is good and that a mechanism has been developed within the study field to facilitate their cooperation.

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	ANNEX 15_2 Diploma template and supplement Bachelor program.docx	15_2_pielikums_Bak_Studiju_Diplomi_LV ar pielikumu.docx
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	Annnex 16 2 Statistical data of students in the study programme Occupational health and safety at work.docx	16_2_pielikums_Statistika_par_studejosajiem_Arodveseliba.docx
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	Annnex 17_2_Compliance of the professional bach study program with the National Education Standard.docx	17_2_pielikums Bak programmas atbilstība izglītības standartam.docx
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 18_2_Compliance of the professional bach study program with the professional standard.docx	18_2_pielikums-BAK_Profesijas_standarta_kartejums.docx
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	30_2_Conformity of course content of the PBStP OHS to the regulatory enactments of the Republic of Latvia.docx	30_2_PBStP ADD kursu satura atbilstība Latvijas Republikas normatīvajiem aktiem.docx
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Annex 20_2_Course mapping of the professional bachelor study program.xlsx	20_2_pielikums_BAK_kursu_kartejums LV ENG.xlsx
The curriculum of the study programme (for each type and form of the implementation of the study programme)	Annex 21_2 Study plan of the study program Occupational health and safety at work.xlsx	21_2_2_Pielikums Bakalaura programmas kursu plānojums.xlsx
Descriptions of the study courses/ modules	ANNEX_22_2_Description of courses of the Occupational health and safety at work.doc	22_2_Pielikums_Studiju kursa apraksti_Bak LV.docx
Description of the organisation of the internship of the students (if applicable)	Annnex 29 2 Professional bachelor's level study program Occupational Health and Safety at Work practice regulations.docx	29_2_pielikums Studējošo prakses organizācijas apraksts_LV.docx
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)		

Human Factors, Occupational Safety and Health (51862)

Study field	*Internal Security and Civil Protection*
ProcedureStudyProgram.Name	*Human Factors, Occupational Safety and Health*
Education classification code	*51862*
Type of the study programme	*Doctoral study programme*
Name of the study programme director	*Henrijs*
Surname of the study programme director	*Kaļķis*
E-mail of the study programme director	*henrijs.kalkis@lu.lv*
Title of the study programme director	*Dr.sc.admin., profesors*
Phone of the study programme director	*+371 67034980*
Goal of the study programme	*To train PhDs, highly qualified researchers and specialists with appropriate knowledge, skills and competences on the role of human factors in work processes, occupational safety and occupational health, and to acquire internationally comparable and competitive competences and an internationally comparable PhD degree.*
Tasks of the study programme	*1. To provide in-depth theoretical knowledge of human factors, occupational safety and occupational health in the field of study and to foster skills in research work.* *2. To improve doctoral students' skills in scientific debate on the research area of human factors, occupational safety and health and related topics.* *3. To improve PhD students' knowledge of contemporary human factors, occupational safety and health theories and research methods.* *4. To improve the knowledge and skills of doctoral students in pedagogical work.* *5. To ensure that internationally relevant research is carried out, its results reported and participation in international as well as local conferences.*

Results of the study programme	*Knowledge:* *1. Demonstrate an advanced or broadened knowledge and understanding of human factors, occupational safety and health theories, research methodology to provide a basis for a competent and creative approach to research on the chosen topic.* *2. Have knowledge and understanding of current scientific theories and findings, research methodologies and contemporary research methods and the interface between different fields.* *Skills:* *3. Explain, discuss, and argue complex or systematic aspects of human factors, occupational safety and occupational health science orally and in writing with both specialists and non-specialists and with the wider scientific community and the general public.* *4. Prepare scientific publications in accordance with international requirements and apply pedagogical skills in teaching at the university.* *5. Independently develop their competence and specialisation, take responsibility for the results of their work and their analysis, carry out research or further education using new approaches, and independently implement scientific projects, achieving achievements in the field of human factors, occupational safety and health that meet international criteria, and lead research or development tasks in companies, institutions and organisations where extensive research knowledge and skills are required.* *6. Independently evaluate and select theories and methods appropriate to scientific research, contributing to the expansion of the frontiers of knowledge or providing new insights into existing knowledge and its applications in practice, and carry out original research of a significant scope, some of which is at the level of internationally cited publications.* *7. Use digital tools for research and for communicating research results to the public.* *Competence:* *8. Independently formulate, analyse and critically evaluate complex scientific and professional problems in human factors, occupational safety and health, justify decisions and carry out further analysis where necessary.* *9. Integrate knowledge from different fields, contribute to the creation of new knowledge, the development of research or professional practices, and demonstrate an understanding and ethical responsibility for the potential impact of human factors, occupational safety and health science outcomes or professional practice on the working environment and society as a whole.* *10. Perform independent, critical analysis, synthesis and evaluation, solves significant research or innovation tasks, independently propose a research idea, plan, structure and manage large-scale scientific projects, including in an international context.*
Final examination upon the completion of the study programme	*Doctoral examinations and Doctoral thesis*

Study programme forms

Full time studies - 3 years - latvian

Study type and form	*Full time studies*
Duration in full years	*3*
Duration in month	*0*
Language	*latvian*
Amount (CP)	*120*
Admission requirements (in English)	*1.Second cycle university degree (Master's degree) in a social science: economics and business, law, education, psychology, labour protection or equivalent; 2. second cycle university degree (Master's degree) in engineering or equivalent; 3. second cycle higher education (Master's degree) in natural sciences: biology and chemistry, computer and information sciences, environmental management or equivalent; 4. second cycle higher education qualification (Master's degree) in pharmacy, health sciences or a professional doctor's degree or equivalent. 5. Entrance examination.*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Doctoral Degree of Science Doctor of Science (Ph.D.) in Social Sciences*
Qualification to be obtained (in english)	-

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, CENTRA RAJONS, RĪGA, LV-1050

Full time studies - 3 years - english

Study type and form	*Full time studies*
Duration in full years	*3*
Duration in month	*0*
Language	*english*
Amount (CP)	*120*
Admission requirements (in English)	*1.Second cycle university degree (Master's degree) in a social science: economics and business, law, education, psychology, labour protection or equivalent; 2. second cycle university degree (Master's degree) in engineering or equivalent; 3. second cycle higher education (Master's degree) in natural sciences: biology and chemistry, computer and information sciences, environmental management or equivalent; 4. second cycle higher education qualification (Master's degree) in pharmacy, health sciences or a professional doctor's degree or equivalent. 5. Entrance examination. 6. For studies in English - at least B2 level of English.*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Doctoral Degree of Science Doctor of Science (Ph.D.) in Social Sciences*
Qualification to be obtained (in english)	-

Places of implementation

Place name	City	Address
University of Latvia	RĪGA	RAIŅA BULVĀRIS 19, 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 study programme was licensed on 3 August 2022. Since the licence was granted, no significant changes have been made to the programme, however, we would like to point out that the programme management and lecturers have taken into account the recommendations of the experts of the evaluation procedure, as well as the recommendations of the AIC, the Study Quality Commission for strengthening the study programme, e.g:

1. The degree to be awarded, "Doctor of Science (PhD) in Social Sciences", was further updated at the time of licensing, in line with the title recommended by the licensing panel.
2. An agreement has been concluded with RTU (Agreement on the Provision of Doctoral Thesis Defence in the Field of Interdisciplinary Social Sciences, 01.09.2023.) to ensure the defence of doctoral theses and doctoral dissertations by the dissertation council until the University has established its own dissertation council in the relevant field of science (Annex 24).
3. The required library resources relevant to the subject of the field of study and published after 2016 are reviewed. The management of LU and the Faculty are committed to support the acquisition of resources financially, which will take place from 2023 onwards.
4. Negotiations have been initiated with the Student Business Incubator, the Latvian Ergonomics Society, the Business Efficiency Association, the Latvian Chamber of Commerce and Industry, individual companies, state financial development institutions, incl. LIAA, Altum on the development of commercialisation research.
5. The possibilities and sources of financing the study programme shall be evaluated in order to make up the difference between the cost of the study programme and the study programme fee. Partners and funding opportunities in the private sector are already being sought.
6. In the academic year 2022/2023, almost all (5 out of 7) students in the programme have been awarded an internal LU Doctoral Support Grant.

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 Doctoral Study Programme (DSP) "Human Factor, Occupational Safety and Health" is implemented in the field of study "INTERNAL SECURITY AND CIVIL DEFENCE", which currently also includes the following study programmes:

- First-level professional higher education study programme **Labour Protection**.
- Professional higher education Bachelor's study programme **Occupational Health and Safety at Work.**
- Master’s study programme **Work Environment Protection and Expertise.**

The DSP "Human Factors, Occupational Safety and Health" establishes a full cycle of studies at the University, covering all levels of higher education (first professional education, bachelor's education, master's education and doctoral education).

The DSP "Human Factor, Occupational Safety and Health" will cover all the priority research areas identified in the LU strategy, in which the DSP doctoral students will be involved:

1. Scientific excellence;
2. Study development;
3. Contribution to society;
4. Environment and governance, with a focus on green thinking and sustainability;
5. Organisational culture.

In the Latvian classification of branches and sub-sectors of science (Cabinet of Ministers Regulation No 595 of 27.09.2022 "Regulations on Latvian groups, branches and sub-sectors of science" (Only in Latvian)), the DSP is closest to the group of branches of science "Social sciences" in sector 5.9 "Other social sciences, including interdisciplinary social sciences and military science". Accordingly, the code number of the DSP 'Human Factors, Occupational Safety and Health' according to the Latvian Classification of Education is 51862, where 51 - Doctoral studies; 86 - Civil and military protection; 862 - Occupational protection and safety. The appropriate classification and code of the programme was specifically agreed with the Academic Information Centre at the end of the licensing process. The DSP 'Human Factors, Occupational Safety and Health' has a volume of 120 CP (3 years), with academic and independent research work of 20 CP each semester.

The aim, objectives, and outcomes of the study programme are carefully considered and sequenced to build a progressive acquisition of knowledge, skills and competences during doctoral studies, corresponding to EQF level 8.

The DSP "Human Factors, Occupational Safety and Health" is open to students with second cycle higher education (Master's degree) in Economics and Business, Law, Educational Sciences, Psychology, Occupational Health, Engineering, Natural Sciences (Biology and Chemistry), Computer Science and Informatics, Environmental Management, Pharmacy, Health Sciences, as well as a professional medical degree or equivalent.

The DSP "Human Factors, Occupational Safety and Health" has an entrance examination to test prior knowledge:

- Entrance interviews. To apply for the studies, the candidate submits and orally defends the application for the planned research, which must indicate, among other things, the relevance of the topic of the doctoral thesis and its inclusion in the existing scientific debate and economic (social, governance, subject-specific) activity.

In the result of the competition, applicants are matriculated in the study programme according to the results of the sum of the following criteria:

- a grade at the previous level of study;

- an evaluation of the research work embedded in the project;

- experience in research work or work related to the thesis topic;

- topicality of the thesis;

- scientific quality of the research proposal;

- the evaluation of the applicant's oral defence committee.

The general admission criteria for PhD programmes at the University are available at: https://www.lu.lv/en/admission/admission-procedure/doctoral-studies/ . Admission interviews are held in Latvian or English, respectively for studies in Latvian and English.

- To study in English, you must have an English language proficiency of at least B2 or an IELTS test score of at least 5.5 (taken within the last 10 years) or another English language assessment, an equivalent score on an international language test, or an exam grade (at least 7) from the supplement to your previous higher education diploma. If necessary, an assessment of the applicant's English language proficiency may be carried out during the entrance interviews.

Foreign applicants need to have an education equivalent to a Latvian Master of Science degree, which is assessed by the Academic Information Centre (AIC) and a certificate is issued.

The DSP "Human Factor, Occupational Safety and Health" is considered to be successfully completed if the doctoral student has obtained a total of 120 credit points (CP) by completing the study courses included in the study programme, successfully passing the doctoral examinations (foreign language examination, specialty examination), as well as by developing a doctoral thesis and presenting it (pre-defence) to the doctoral council. A doctoral thesis is a dissertation, a monograph, or a set of at least three thematically coherent and substantively consecutive scientific articles published in recognised peer-reviewed indexed journals (e.g. Scopus, Web of Science). In the case of a PhD thesis as a set of published scientific publications, the PhD student must also prepare and submit an analytical paper on the content of the scientific publication equivalent to the abstract of the PhD thesis. The DSP leads to the award of the doctoral degree of science of Doctor of Science ('PhD') in Social Sciences.

3.1.3. Economic and/ or social substantiation of the study programme, analysis of graduates' employment.

The existence and development of the DSP "Human Factor, Occupational Safety and Health" is obvious from the point of view of the development of the Republic of Latvia, as it is a study programme of the highest level, which provides training of specialists with doctoral degrees in several scientific disciplines, including engineering disciplines, information technology (IT) and digitalisation, occupational and health protection, including safety culture, design, psychology and pedagogy, management sciences, including systems, project and process management.

The study programme "Human Factor, Occupational Safety and Health" is interdisciplinary and contributes to the implementation of a sustainable development strategy for the Latvian economy. The content of the DSP "Human Factor, Occupational Safety and Health" is fully in line with the guidelines set out in the Education Development Guidelines 2021-2027 "Skills for the Future Society" On educational development guidelines for 2021-2027 (Only in Latvian)

There is no similar study programme in the Baltic countries. The closest similar study programmes in Europe are in Portugal in Occupational safety and health and in Cyprus in PhD in Occupational safety and health , which train researchers with a PhD in occupational safety and health.

The development of scientific research at doctoral level offered by the doctoral programme is in line with the priorities of the Latvian National Development Plan and the Latvian Sustainable Development Strategy 2030. www.pkc.gov.lv The DSP is in line with a number of priorities, such as the need to invest in human capital, which includes activities to develop individuals' capacities to work effectively and to develop their competences and skills. This increases individuals' productivity, career prospects and employability in the labour market. In addition, an important aspect is the paradigm shift in education, where, alongside the acquisition of specific competences and qualifications that determine a person's ability to enter the labour market and build a successful career, education is also a process of developing a person's talents, emotional and social intelligence, and personality. The quality, accessibility, and content of education at all levels and age groups is therefore an opportunity for Latvia's development and a prerequisite for increasing the value of human capital. Equally important are the priorities for the development of an innovative and eco-efficient economy. To harness people's intellectual and creative potential to grow an innovative, energy-efficient and competitive economy, the focus is on entrepreneurship and a supportive business environment, support for the creation and commercialisation of new ideas, knowledge transfer and user-driven research. A mass creativity approach means that the creativity, knowledge, and ideas of everyone in Latvia can be harnessed to generate and disseminate a wide range of innovations. The development strategy's thrust on innovative governance and public participation is also important to raise public awareness of the various processes. Civic education and social inclusion are identified as one of the priorities of the development strategy. To create an understanding of societal processes - economics, politics, culture - general education and further education programmes need to focus on engineering as well as the social sciences - sociology, anthropology, economics, political science. The interdisciplinary doctoral programme "Human Factors, Occupational Safety and Health" will help to implement this in an applied way, as it includes engineering disciplines, psychology and pedagogy, information technology (IT) and digitisation, design, occupational and health sciences, including safety culture, management sciences, including systems, project and process management.

The DSP "Human Factors, Occupational Safety and Health" is also in line with the priorities of the Latvian Smart Specialisation Strategy: modern education, knowledge base, productive innovation system, polycentric development, aimed at promoting the long-term development of the economic sectors of the Republic of Latvia. One of the areas of smart specialisation is smart materials, technologies and engineering systems, which incorporate occupational and environmental safety research into their activities. The content of the new DSP study programme also includes information and communication technologies, where topics such as educational technologies, technology regulation and ethics, privacy and data protection developments are analysed. This is clearly in close connection with the University of Latvia's Strategic Plan, which defines interdisciplinary or international excellence programmes for specially trained or motivated students and is in line with several goals and objectives of the University of Latvia's Strategic Plan, including the establishment of separate interdisciplinary and international excellence study programmes.

It is important to note that studies and research on human factors, occupational safety and occupational health are in line with the priority directions of Latvian science development (On priority directions of science for 2018-2021 - Cabinet of Ministers' Order No 746 On priority directions of science (Only in Latvian); Protocol Cabinet of Ministers' Order No 246 (14.04.2021) Science, Technology Development and Innovation Guidelines 2021-2027). In accordance with Article 13(2)(3) and Article 34(4) of the Law on Scientific Activities, the following priority directions in science have been identified which are closely linked to the objectives and outcomes of the DSP "Human Factors, Occupational Safety and Health", e.g. technologies, materials and engineering systems for adding value to products and processes and cybersecurity (incl. Engineering and Technology - research issues relevant to challenges in engineering and technology, technology

development, smart systems development, public safety; technologies for remote data collection, research on information and communication technology methods); Public Health (incl. Health and well-being, human health, health care, public well-being and health improvement); Knowledge culture and innovation for economic sustainability (including innovation for economic growth and sustainable development, knowledge and technology transfer, internationalisation, social security and quality of life, building social capital); Demography, sport, open and inclusive societies, well-being and social security; National and public security and defence www.izm.gov.lv (Only in Latvian).

The study programme responds to a number of education priorities set by the European Commission: an economy that works for people; protecting the European way of life; a stronger Europe in the world; a Europe fit for the digital age. The scope of the DSP is in line with the first priority of the European Commission Communication "New Priorities for European Cooperation in Education and Training" on building relevant and high quality skills and competences, focusing on learning outcomes, employability, innovation and civic engagement.

Potential labour market for graduates: Upon successful completion of the study programme and the award of a doctoral degree, graduates can work in any sector of the economy, both as management-level professionals and as consultants, establish their own companies and work in universities and higher education institutions as lecturers and researchers in the fields of human factors, occupational safety and health, occupational health and safety, employment relations and management. Such graduates will be in demand in today's labour market, as evidenced by the World Economic Forum Resolution and studies in several other countries, as well as the growing demand in public institutions for knowledgeable specialists with a broad field of vision, such as ministries, agencies, inspectorates, etc. The labour market will require new skills and competences in human factors, occupational safety and health, as well as the ability to manage modern industrial organisations in an increasingly AI- and biotechnology-driven world. This is also confirmed by the forecasts of the Latvian Ministry of Economics that in the coming years there will also be a shortage of specialists in engineering, natural sciences, information and communication technologies in Latvia (www.em.gov.lv). These are also global trends, e.g. according to the US Bureau of Labor Statistics, the most identified shortages are currently in the following sectors: research in engineering, security, information technology. The World Bank's study on the need to modernise higher education (Higher Education Governance Study in Collaboration with the World Bank (Only in Latvian)) also points out that Latvia needs a strong and research-based doctoral pipeline, which will contribute to a predictable and transparent career structure and help Latvia to "attract great minds from abroad and also retain its talent in universities". The report also points out that according to recent World Bank studies, human resources account for two-thirds of a nation's wealth. Strong human resources, supported by high-quality and internationally competitive higher education institutions, are the foundation of national prosperity and higher education institutions need academic staff capable of research, study and administrative work, the study says.

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 the academic year 2022/2023, 7 doctoral students applied for full-time doctoral studies and started their studies in Latvian. As the programme was licensed in August 2022, it was physically

impossible to advertise for applications in English. Therefore, the English stream is planned to start in the academic year 2023/2024. As the programme is licensed, no budget places are foreseen for the time being and all PhD students study at their own private expense. The University of Latvia offers support grants to students and 5 PhD students have already successfully used it (the other 2 PhD students did not qualify as they are employed as academic staff). There is no drop-out of students.

Statistical data on students during the reporting period are attached in a clear annex (Annex 16).

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 content of the DSP "Human Factors, Occupational Safety and Health" has been developed in accordance with the objectives defined in the specific support objective 8.2.1 of the Operational Programme "Growth and Employment" project "Establishment of Internationally Competitive Study Programmes at the University of Latvia Promoting the Development of the Latvian Economy", as well as based on the following external and internal normative acts:

1. The Law on Higher Education Institutions of the Republic of Latvia (02.11.1995)
2. Law on scientific activity (14.04.2005);
3. Cabinet Regulation No.1001 (27.12.2005) "Procedures and Criteria for the Award of the Degree of Doctor of Science (Doctoral Dissertation)" "Zinātniskā doktora grāda piešķiršanas (promocijas) kārtība un kritēriji "(Only in Latvian);
4. Cabinet Regulation No.1000 (27.12.2005) "Regulations on the Delegation of the Right to Confer the Doctoral Degree (Doctoral Dissertation) to Universities" "Noteikumi par doktora zinātniskā grāda piešķiršanas (promocijas) tiesību deleģēšanu augstskolām" (Only in Latvian);
5. Cabinet Regulation No 595 (27.09.2022.) "Regulations on Latvian science industry groups, science sectors and sub-sectors" "Noteikumi par Latvijas zinātnes nozaru grupām, zinātnes

nozarēm un apakšnozarēm ” (Only in Latvian);

6. Cabinet Regulation No.202 (16.04.2013) "Procedures for Issuing State Recognised Higher Education Documents" Kārtība, kādā izsniedz valsts atzītus augstāko izglītību apliecinošus dokumentus” (Only in Latvian);
7. Cabinet Regulation No 320 (09.07.2019) "Procedure for Granting Expert Rights and Establishing Expert Commissions of the Latvian Council of Science" Latvijas Zinātnes padomes ekspertu tiesību piešķiršanas un ekspertu komisiju izveides kārtība” (Only in Latvian);
8. Decision of the LU Senate No 2-3/13 (26.02.2024) Regulations of LU Study Programmes and Continuing Education Programmes LU studiju programmu nolikums (Only in Latvian);
9. Decision No 166 of the Senate of the University of Latvia (30.03.2015) Regulations of the Branch Doctoral Council of the University of Latvia Latvijas Universitātes Nozares doktorantūras padomes nolikums (Only in Latvian);
10. LU Order No.1/95 (12.04.2006) LU Regulations on Doctoral Councils and Doctoral Promotion at the University of Latvia LU Noteikumi par promocijas padomēm un promociju Latvijas Universitātē (Only in Latvian).

As mentioned above, the DSP "Human Factors, Occupational Safety and Health" is a highly interdisciplinary programme, providing training for PhD graduates in a number of disciplinary groups and fields, including, for example, information technology (IT) and digitisation, occupational and health sciences including safety culture, design, psychology and pedagogy, management sciences including systems, project and process management. This was also recognised by the AIC in the programme licensing process.

The content of the DSP, through the research, knowledge creation and transfer, validation and specialisation courses included in the programme, is thoughtfully organised into the following main content groups in two modules: the science module and the specialisation module. The term 'module' is used in the programme to refer to the main content groups of the study programme: the science module comprises doctoral students' research work, courses supporting scientific activity methodologically, validation and experience sharing colloquia for joint discussion of scientific activity, and doctoral examinations; while the specialisation module comprises courses of study specific to the title of the programme and the programme outcomes, specifically in the areas of human factors, occupational safety and occupational health (see more detailed list below). The parameters laid down in the Higher Education Act, including learning outcomes, design and courses of study, are defined and described in the programme as a whole and in each course of study.

Science module - total of 96 CP.

1) Development of the PhD thesis. (Research Thesis 1 - Theory. Research Thesis 2 - Practical Analysis (case studies). Research Thesis 3 - Empirical study and novelty) - total of 70 CP.1)

2) Research supporting scientific methodology study courses (Research Methodology 2 CP; Research Ethics and Critical Thinking, Explanation of Plagiarism and Data Processing and Protection 2 CP; Qualitative Research Methods 2 CP; English for Research Documentation and Presentation 4 CP; Scientific Writing and Scientific Language 2 CP; University Pedagogy and SMART Digital Competence 2 CP; Quantitative Research Methods 2 CP) - total of 16 CP2)

3) Doctoral seminars (colloquia) to discuss and improve doctoral theses (1st Doctoral Seminar:

Discussion of the methodology and theory part. Doctoral Seminar 2: Discussion of the practical (case study) part. Doctoral Seminar 3: research part

and discussion of novelty.) - total of 6 CP.

4) PhD examinations (in the specialty and in a foreign language) - total of 4 CP.

Specialisation module - 24 CP

5) Specialisation courses (Human factors and ergonomics subjective methods. Objective methods in human factors and ergonomics. Modern theories of human factors-ergonomics, occupational health and safety. Systems safety and risk engineering. Ergonomic interventions. Cognitive engineering at work. Musculoskeletal mechanics and modelling in biomechanics. Occupational psychology and cognitive science. Human resource management, business strategy and innovation. Occupational health and safety engineering. Human-computer and human-robot interaction: user and technology. Human-centred design and socio-technical systems. Practical anthropometry. Design of lighting systems. LEAN integration in an efficient human-machine-environment system) - 14 CP in total for Part A compulsory courses; 12 CP restricted elective B part courses (8 CP to be selected); 2 CP free elective Part C courses. The study programme has developed Part C study courses that are relevant to the specifics of the study programme and provide students with the opportunity to deepen their knowledge in relation to the specifics of the study programme. At the same time, students have the opportunity to choose a Part C course from the range of Part C courses offered by the University of Latvia. The types, content, and selection of specialisation courses are based on both industry and scientific trends in the fields related to the DSP, as well as on the requirements of regulatory enactments.

The interrelated structure of the DSP study process (see Table 3.2.1.1) in both modules with interrelated courses and research work is designed to gradually develop students' knowledge, skills and competence through independent research work, including preparation of publications and participation in scientific conferences, knowledge transfer in pedagogical work, and complemented with scientific methodology and specialisation courses, thus achieving the aim of the study programme. The PhD Thesis 1, 2 and 3 module is divided into 3 main parts, respectively 3 years of study, thus ensuring that students' PhD theses are guided through the study process. Each of the 3 sections of the Science Module includes the core research thesis (1, 2 and 3 respectively), PhD seminars/colloquia (1, 2 and 3 respectively), as well as methodological and specialised knowledge development courses complementing the research thesis. Thus, in the 1st year of study, along with "Research Thesis 1 - Theory", students learn: 1) Research methodology, which helps to develop the scientific methodology and research structure of the thesis; 2) Research ethics, critical thinking, plagiarism and data processing and protection; and 3) Qualitative research methods, which help students to analyse the theoretical concepts of the thesis topic in Research Thesis 1. The course descriptions for each research thesis include, among the credit requirements, participation in colloquia, discussions and working groups of the LU Doctoral School or equivalent scientific institution, presentation of a research progress report at one of the colloquia, as well as preparation of a scientific article/publication project. Therefore, in the 1st year of study, along with Research Thesis 1-Theory, students take the course "Scientific Writing and Scientific Language", which helps them to write scientific articles and prepares them for the PhD examination in a foreign language. For example, in the 3rd year (Research Paper 3 - Empirical Research and Novelty), when PhD students carry out independent empirical research and obtain primary data for the development of novelties to ensure high-level data analysis with real-time research data, students take the course "Quantitative Research Methods".

Starting from the 2nd year of study, in addition to preparing a scientific article/publication, doctoral students must also carry out pedagogical work - lectures, seminars, and supervising students' work at the university (see Table 3.2.1.1).

Courses at the corresponding level of the degree programmes that doctoral candidates have taken or are taking at other universities may be applied to both the compulsory and restricted elective

part of the courses.

In order to ensure the gradual progress and regular improvement of high quality doctoral theses, an annual evaluation of the research and study work is organised for doctoral students, which is also a form of internal quality assurance and control. The independent scientific work carried out in each academic year (respectively *Research work 1* - Theory. *Research work 2* - Practical analysis (case study). *Research work 3* - Empirical study and novelty.) are discussed and evaluated in doctoral seminars/colloquia (*Doctoral Seminar 1*: Discussion of the Methodology and Theory part. *Doctoral seminar 2*: discussion of the practical (case study) part. *Doctoral seminar 3*: discussion of the research part and novelty). The annual performance evaluation of doctoral students takes into account the application of knowledge and skills acquired during the study process to research work, the quality of the research content itself, as well as the doctoral student's participation in related scientific and knowledge transfer activities, including participation in colloquia of the LU Doctoral School or equivalent scientific institution, the preparation and publication of a scientific article/publication in internationally cited and indexed databases of scientific journals, as well as pedagogical work (lectures, seminars and supervision of students' work at the university). These performance indicators are also included in the course descriptions for Research Papers 1, 2 and 3, as well as in the course descriptions for PhD seminars as credit requirements and assessment criteria. Doctoral students shall present their annual research and study performance at the relevant doctoral seminars (1, 2 and 3) foreseen in the curriculum, which shall be attended by the programme supervisor, lecturers and members of the Doctoral Programme Board.

Table 3.2.1.1.

DSP Course/module plan (in semesters)

	DSP Course/module plan (semesters)					
	1st sem. 20 CP	**2nd sem. 20 CP**	**3rd sem. 20 CP**	**4th sem. 20 CP**	**5th sem. 20 CP**	**6th sem. 20 CP**
	DOCTORAL THESES PART 1			**DOCTORAL THESES PART 2**		**DOCTORAL THESES PART 3**

SCIENCE	1) Methodology of scientific activity. 2CP A	2) Research work 1 – Theory. 8 CP A	9) Doctoral Seminar 1: Discussion of the methodology and theory part. 2CP A	10) Research work 2 - Practical analysis (case studies). 10CP A	16) Doctoral Seminar 2: discussion of the practical (case study) part.2CP A	17) Research work 3 – empirical study and novelty. 12CP A
	2) Research work 1 –Theory. 14 CP A					19) Doctoral seminar3: discussion of the research part and the novelty. 2CP A
	3) Research ethics and critical thinking, explanation of plagiarism and data processing and protection. 2CP A	5) Qualitative research methods. 2CP A	10) Research work 2 – Practical analysis (case studies). 10CP A	26) English for research documentation and presentation 4CP B	17) Research work 3 - empirical study and novelty. 16CP A	20) Doctoral examination in speciality 2CP A
		6) Scientific writing and language. 2CP A	11) University pedagogy and SMART digital literacy 2CP A	27) Practical Latvian for international students I. 4CP B	18) Quantitative research methods. 2CP A	21) Doctoral examinationin foreign language 2CP A
SPECIALIZATIONSPECIALIZĀCIJA	4) Subjective methods of human factor and ergonomics. 2CP **A**	7) Objective methods of human factor and ergonomics. 2CP **A**	12) Modernās teorijas par cilvēkfaktoru-ergonomiku, arodveselību un drošību. 2KP **A**.	15) System safety and risk engineering. 2CP **A**		28) Ergonomic intervention. 2CP B
		8) Cognitive engineering for work. 2CP **A**	13) Muskuļu skeletālās sistēmas mehānika un modelēšana biomehānikā. 2KP **A**	23) Occupational psychology and cognitive science. 2CP		29) Human resources management, business strategy and innovation. 2CP B
		22) Occupational health and safety engineering. 2CP	14) Cilvēka-datora un cilvēka-robotu mijiedarbība: lietotājs un tehnoloģija. 2KP **A**	24) Human centred design and socio-technical systems. 2CP		
		30) Lighting systems design. 2CP C		25) Practical anthropometry. 2CP B		
		31) LEAN integration in effective system human – machine – environment				

In the 3rd year of the study plan, students take doctoral examinations in their specialty and in a foreign language. The aim of the examination is to test students' knowledge of theoretical concepts, practical insights and the ability to participate in discussion on scientific and professional issues and developments, including in a foreign language. The content and scope of the doctoral examination shall be determined by the Doctoral Council. The doctoral examination is compulsory in a foreign language, which allows verifying the doctoral candidate's knowledge and ability to prepare scientific publications in a foreign language, as well as to present orally the results of his/her research for approval at international conferences. At the request of the doctoral candidate, the Doctoral Board may agree to all doctoral examinations being conducted in a foreign language.

In addition to the examples of the interrelation of the content of the study courses included in the programme shown above, a detailed mapping of the study programme and study course outcomes (knowledge, skills, competences) (Annex 20) has been carried out during the development of the programme, verifying and ensuring that each study course contributes to the achievement of the study programme outcomes and objectives. Courses of study have been designed in such a way as to avoid duplication of content and to ensure continuity and progression, while also ensuring that several learning outcomes are reinforced in several courses of study. The mapping of study courses and programme outcomes shows that all study courses in the Human Factors, Occupational Safety and Health DSP contribute to the achievement of the programme outcomes. Each programme course contributes to 3-5 programme outcomes, while courses 8 to 18 courses contribute to a programme outcome (knowledge, skills, and competences). See Table 3.2.1.2 for an abridged version of the course mapping and Annex 20 for an expanded mapping.

Table 3.2.1.2.

Mapping of study courses - short version

	Study programme outcomes												**Study programme outcomes**										
Course No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**	**CourseNo.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
1		X			X	X				X	**4**	**18**		X				X	X	X			**4**
2	X		X			X		X			**4**	**19**				X	X	X	X			X	**5**
3		X	X		X			X	X		**5**	**20**			X		X	X	X		X		**5**
4	X		X				X		X		**4**	**21**			X		X	X	X	X			**5**
5		X				X	X	X			**4**	**22**	X		X	X		X		X			**5**
6		X		X			X		X		**4**	**23**		X			X	X			X		**4**
7	X					X	X	X			**4**	**24**	X		X				X		X		**4**
8	X		X		X					X	**4**	**25**	X		X		X		X	X			**5**
9	X				X	X		X			**4**	**26**		X	X	X			X	X			**5**
10				X	X			X		X	**4**	**27**		X	X				X	X			**4**
11		X		X	X		X		X		**5**	**28**	X			X		X	X		X		**5**
12	X		X		X	X				X	**5**	**29**		X	X	X				X			**4**
13	X		X		X			X			**4**	**30**	X		X		X				X		**4**
14	X				X		X			X	**4**	**31**		X	X	X				X			**4**
15		X	X		X			X			**4**	**32**		X	X					X			**3**
16				X		X			X	X	**4**	**33**		X	X					X	X		**4**
17				X	X		X		X	X	**5**												

Total	**13**	**14**	**19**	**11**	**17**	**14**	**16**	**18**	**12**	**8**

As the programme is interdisciplinary, the target audience of potential students is relatively broad, as it includes engineering disciplines, psychology and pedagogy, information technology (IT) and digitalisation, design, occupational and health sciences, including safety culture, management sciences, including systems, project and process management. For example, the study programme will be of applied use to the following professionals: management specialists, lawyers, educators, occupational health specialists, health management specialists, health care professionals, doctors, public health specialists, etc. professionals with a Master's degree who wish to further their knowledge and research in the field of human factors, occupational safety and occupational health. It is expected that 7-10 PhD students from Latvia and 3-5 PhD students from other countries will be enrolled in the programme each year over the next 3-5 years, with a high probability that this number will maintain or increase in the following years as the scientific and practical impact and awareness of human factors, ergonomics, occupational safety and occupational health grows.

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 degree of Doctor of Science (PhD) in Social Sciences to be awarded as a result of the studies, research, research work and overall completion of the DSP "Human Factors, Occupational Safety and Health" is fundamentally based on the achievements and findings of scientific disciplines and is fully consistent with:

1. both the current conventional wisdom and advances in classical occupational health, ergonomics, health, management science, engineering and other relevant disciplines,
2. newer derivations and contemporary trends in these fields of science,
3. the study, research and scholarly work embedded in the study process itself, which includes both the acquisition of theory and the development and strengthening of knowledge, skills and competences, as well as scientific research in the fields of theory and the real working environment.

The three categories are a complex mix of the more classical physical, physiological and biological aspects of the working environment, such as human factors, ergonomics, health and safety at work and occupational health, as well as aspects of the working environment that are becoming increasingly important today, complementing the classical ones, namely human factors, ergonomics, remote working, its efficiency, legal, psychological aspects, the integral participation of technology, including in the management of processes, resources and people, cognitive aspects, well-being and a range of other new scientific and practical aspects in line with the themes of the doctoral theses, the results of the scientific activity of the thesis supervisors and the programme lecturers. In the course of their studies, students both acquire classical and recent knowledge in the field of science, its derivations and interpretation in the broader context of socio-economic governance, and conduct extensive scientific research work with this knowledge, including in the doctoral programme study courses and independent scientific research, the results of which are validated and disseminated in conferences, publications, study courses and training programmes for knowledge transfer and real work environment. Given that the programme is largely studied and

taught by practitioners from the labour market and industry, doctoral students and lecturers, in addition to analysing the achievements and insights of the scientific field, also propose new models of synthesis of knowledge in line with the latest practical and scientific trends.

The award of the PhD in Science is also based clearly on the fact that the courses implemented in the programme and their content, descriptions, methods of knowledge transfer and co-creation are relevant to the trends in the labour market, its sectors, practices, changes and also the development of science and its applications. This includes the vision of the programme lecturers - professionals and experts in the field - on the development trends in science and the labour market in the subject of their respective study course, which, in turn, is supported by the active practical, scientific and research activities of the programme lecturers - participation in conferences, preparation of publications, presentation of reports, participation in research, scientific and experience exchange projects and activities. The quality of the study programme content - courses, colloquia, scientific activities, dissertations - and its compliance with scientific knowledge is also ensured by internal cooperation and exchange of experience of the programme lecturers and doctoral students, as well as by external cooperation of the programme with labour market, state, non-governmental, academic and scientific institutions, organisations and institutions, for example, guest lectures of companies, visits to companies, participation of lecturers and students in scientific conferences, seminars, incl. annual conferences of the University of Latvia and other Latvian universities, cooperation with the scientific institution Latvian Ergonomics Society.

The research areas of the programme are closely related to the aim of the study programme, the objectives of the titles and, to a large extent, the thesis topics of the enrolled PhD students (see Table 3.2.6.1 in Section 3.2.6). Doctoral students are also encouraged to engage in active scientific research work as early as in the first year of study, including the development of research especially on the topic of their doctoral thesis, participation in scientific conferences, and, as far as possible, the involvement of doctoral students in scientific research projects, as well as the development of the participation of the programme's lecturers. Already in the first year of the study programme implementation, the doctoral programme and doctoral students have been involved in other study programmes, thus providing additional added study and research value, i.e. - doctoral students participate in the organisation of seminars of the bachelor and master study programmes, offering to conduct individual classes on specific topics as well as organising visits to companies (e.g, Ance Saulīte, PhD student, organises practical training at KNAUF Latvija; Diāna Madelāne, PhD student, organises practical training for students from Hartico (https://hartico.ee/lv/); Simona Štelle, PhD student, organises practical training at Latvijas Dzelzceļš; Anatolijs Roganovs, PhD student, presents practical experience from Rīgas Satiksme in lectures. Thus, the doctoral programme, in accordance with its aim and objectives, is actively involved in the transfer of the programme's expertise and its results to the wider research context in science, as well as in the transfer of knowledge, research results and their practical applicability to other levels of education and, practically, to companies in the sector.

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.

Oral, written, and combined study and assessment methods are used during the study courses and examinations.

The study uses a variety of methods to acquire and consolidate knowledge, such as introductory lectures, interactive lectures, summary lectures, and problem-oriented lectures. Practitioners, professionals from different institutions are invited to lecture on individual courses in order to promote the unity of theory and practice. Practical assignments, seminars, individual, pair and group work, discussions and project development, study excursions to industry organisations are widely used. Employers are involved in the implementation and development of study courses (invited to lead individual seminar sessions, often organised as exchange visits to workplaces, etc.).

To foster the development of students' research competences, students have the opportunity to analyse and study in depth problems of interest to them in the field in a succession of courses. Senior students are involved in peer teaching-learning.

Seminars in the courses foster students' speaking, presentation and discussion skills.

Student-centred methods dominate the study process in order to achieve the learning outcomes - to acquire and consolidate knowledge, skills and develop competence. The study process uses methods that promote students' communication in the performance of study tasks, solving real problems in the field, modelling situations.

The physical environment is also gradually changing: classrooms can be easily converted for group work, individual work, and students can use digital technologies. Lecturers mostly use methods that encourage students' active participation, critical thinking and reflection. The e-learning environment will be used to support the learning process and independent study. An e-learning environment (Moodle) has been created for each study course, where students have access to lesson materials, assignment descriptions in addition to study materials related to the course topics, as well as study assignments (tests, forums, seminars, conferences, etc.). All mid-term and final examinations, with the reasons for the mark, are recorded and made available to students in the e-learning environment.

The student-centred approach is followed when updating study programmes and their study courses, with special attention paid to the meaningful formulation of study outcomes, thus promoting dialogue between lecturers and students on study content, forms of organisation and methods. Correctly formulated learning outcomes, in turn, promote students' understanding and ownership of their own learning, self-assessment and understanding of the assessment received. In the study process, lecturers use methods, forms of examination and assessment criteria that are appropriate to the aim of the study and the planned study outcomes.

Students receive support and feedback from lecturers during the study process. The assessment criteria for the award of marks are made public in advance. Assessment provides students with the opportunity to demonstrate the extent to which they have achieved the expected learning outcomes.

The principles of student-centred education promote student mobility (recognition of study results), and students engage in research and social activities in the community initiated by academic staff, thus gaining significant experience in putting what they have learned in their studies into practice. Through the internal quality assurance policy, study programmes are implemented in such a way that students are encouraged to actively participate in the development of the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. The results of student surveys are evaluated and taken into

account in the development of the study process. Students willingly express their suggestions for the improvement of study programmes and the process in discussions with lecturers, programme directors.

The study outcomes for each study course and for the "Human Factors, Occupational Safety and Health" DSP at the University of Latvia are formulated as a set of knowledge, skills and competences. The courses of the study programmes are designed according to the principles of progression and succession. To ensure this, the study programme has mapped the intended learning outcomes at the level of the study programme and at the level of the courses (see Section 3.2.1 and Annex 20.4).

At the beginning of their studies, students are informed about the organisation and implementation of studies in the study programme. At the beginning of each individual study course, lecturers inform about the organisation, content, learning requirements, planned study outcomes, examinations and assessment criteria, as well as explain the relevance of the study course to the overall achievement of the study outcomes of the programme. Doctoral students can get acquainted with the criteria and conditions for the assessment of performance and the binding procedures in the course descriptions and in the e-learning environment, as well as at the beginning of each study course in the first lesson. Then each lecturer familiarises students with the organisation of the study course, the requirements for the mid-term and final examinations, the assessment criteria and the procedure for the examinations, without changing these requirements and assessment criteria during the semester.

Lecturers choose the best teaching methods and forms in accordance with the objectives and results of the study programme and study courses. The forms of study of the doctoral study programme are related to the aim and objectives of the study programme:

- ***Lectures -*** a systematic presentation of the main issues of the course. These are used in DSP courses to present essential introductory information, credit requirements and important scientific developments. The largest proportion of lectures (up to 50%) is in Part B theoretical courses, which provide in-depth specialised knowledge in specific sub-fields of doctoral study.
- ***Scientific seminars -*** in-depth discussion of certain theoretical issues, discussion of controversial positions. Doctoral students prepare for seminars independently, using literature (mainly scientific journals, provided by the University Library and its Internet databases), justify and defend their opinions in the seminar session.
- ***Doctoral Colloquia -*** discussion of doctoral students' research results, discussion, and exchange of experience. Promote students' ability to present their research to a wider audience, including by improving their presentation skills at international conferences, seminars, expert discussions.
- ***Independent study, research work, and literature study -*** the most important form of study in the PhD programme. It is particularly important in the various stages of the doctoral thesis development, as well as in the preparation of thesis reports and scientific publications.
- ***Independent empirical research*** includes research carried out individually by PhD students - experimental research and explorations, experimental studies, modelling studies, observations, database construction and analysis, survey organisation and analysis, etc. An important element of independent research is the interpretation of the results obtained, the integration of the research planning process with the analysis of the results, and the use of the results obtained in the dissertation, scientific publications and conference reports, as well as in individual study courses.
- ***Experimental work is also an essential part of independent research.*** It includes developing independent skills in statistical processing of qualitative and quantitative data and interpretation of results. These works need to be carried out basing on the research plan

and methodology previously developed for the thesis, accurately and qualitatively, as the conclusions of the thesis are based on them. The type and extent of experimental work varies considerably depending on the topic of the doctoral research and the requirements of the course of study.

- ***Doctoral thesis*** - is an original scientific research carried out by a doctoral candidate in the chosen field or sub-field of science, the results of which are presented in accordance with the requirements of scientific objectivity, reasoning, and ethics in impeccable literary language, and are of significant importance for science, including the creation of new scientific knowledge. The preparation and submission of the thesis to the Doctoral Board is the most important outcome of the doctoral studies. A doctoral thesis is a dissertation, a monograph, or a set of at least three thematically coherent and substantively consecutive scientific articles published in recognised peer-reviewed indexed journals (e.g. Scopus, Web of Science). In the case of a PhD thesis as a set of published scientific publications, the PhD student must also prepare and submit an analytical paper on the content of the scientific publication equivalent to the abstract of the PhD thesis.

The delivery mechanism of the study programme ensures the achievement of learning outcomes, incorporating the principles of student-centred education. The student-centred approach was followed in the development of the study programme and its study courses, with particular attention paid to the meaningful formulation of learning outcomes, thus facilitating dialogue between lecturers and students on study content, forms of organisation and methods. Correctly formulated learning outcomes, in turn, contribute to students' understanding and ownership of their own learning, self-assessment and understanding of the assessment received. In the study process, lecturers use methods, forms of examination and assessment criteria that are appropriate to the aim of the study and the planned study outcomes. Doctoral students will receive support and feedback from lecturers during their studies. The assessment criteria for the award of marks are made public in advance. Assessment provides an opportunity for students to demonstrate the extent to which they have achieved the expected learning outcomes.

Feedback between students, lecturers and the programme director is provided through course surveys, where students will evaluate both the content of the course and the way it is taught. The e-learning environment will be actively used to support the study process, both by providing access to study materials and by conducting various online activities (self-tests, quizzes). Doctoral students will also receive direct support and feedback from their supervisors, as well as from other lecturers of the study programme, if necessary.

Student-centred methods dominate the learning process. The study process uses methods that promote student communication in the performance of study tasks, solving real problems in the field, modelling learning situations. Lecturers predominantly use methods that encourage students' active participation, critical thinking and reflection. The e-learning environment (Moodle) is used in the study process and to promote independent study. The study process takes into account the diversity of students' learning needs by choosing pedagogical methods that promote students' learning motivation, self-reflection and participation in the study process.

Employers and guest lecturers from local and foreign organisations and higher education institutions are involved in the implementation and development of study courses (invited to lead individual seminar sessions, often organised as exchange visits to workplaces, etc.). For example, Latvian organisations are open for cooperation within the PhD programme: Ventspils Naftas Terminmāls, Stora Enso Packaging, Brabantia Latvia, etc., as well as guest lectures from Penn State University (USA) on industrial engineering, human factors and occupational health knowledge transfer will be provided.

To promote the development of students' research competence students have the opportunity to analyse and conduct in-depth methodological research on problems of interest in specific thesis research topics in consecutive study courses. For example, study courses are divided into research paper development modules, which ensure the sequential progress of doctoral students' work in the study process and allow them to gradually achieve course and programme outcomes. The development of research work in the doctoral programme is reinforced by specialised courses in human factors, occupational safety and occupational health, which will allow doctoral students to gain a broader perspective on current issues and trends, to see new and relevant ways of researching and developing their doctoral thesis.

Doctoral students are also involved in teaching courses, supervising and reviewing coursework, bachelor's theses, and master's theses, thus developing the skills and competences needed for teaching.

Doctoral programmes also encourage research mobility, so that doctoral students gain experience of working in different teams, in different scientific environments.

The study process takes into account students' prior knowledge, previous experience and different learning styles, ensuring a student-centred flexible approach to the implementation of the study programme and the achievement of the learning outcomes. The physical environment of the study is also gradually changing: classrooms can be easily converted for group work, individual work and students can use digital technologies.

The study programme is implemented in such a way that students are encouraged to actively participate in the improvement of the study process. Policies and procedures are in place for the submission of student suggestions and complaints and for the handling of student appeals. The results of student surveys are evaluated and taken into account in the development of the study process. The implementation of the study programme is based on an individual approach to each student. This is manifested in several aspects, such as the possibility for students to consult individually with any member of the teaching staff at specified consultation times; cooperation with students and lecturers is also ensured by the use of electronic communications (e-study), which allows the necessary study materials, assessments and recommendations to be sent to students; students have free access to the general staff of the Faculty, study methodologists and the management.

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).

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).

The doctoral dissertation process in the doctoral study programme and at the University of Latvia is implemented in accordance with the Regulation of the Cabinet of Ministers of the Republic of Latvia No.1001 of 27.12.2005 "Procedure and Criteria for Awarding the Doctoral Degree (Doctoral Dissertation)" and the Regulation of the University of Latvia No.1/95 of 12.04.2006 "Regulations on Doctoral Dissertation Boards and Doctoral Dissertation at the University of Latvia". The doctoral dissertation process includes both ensuring and verifying that the candidate has independently carried out original scientific research in his/her doctoral dissertation under the supervision of an experienced scientist, which provides new insights in the relevant field or sub-field of science, is able to independently plan research, has mastered the methodology of conducting research and methods necessary for work in the specialty, is able to independently analyse the results and draw appropriate conclusions. For the high quality development, value and result orientation of the dissertation in the study programme, in addition to the elements of the study process, methodological instructions for the development and presentation of the dissertation have also been developed. Currently, the study field "Internal Security and Civil Defence" has a council with the chairperson prof. Ž.Roja. In order to organize the preliminary and preparatory work for the doctoral dissertation process well, in accordance with the decision No.166 of the Senate of the University of Latvia of 30.03.2015 "Regulations of the Doctoral Council of the Branch of Social Sciences of the University of Latvia", an "Interdisciplinary Doctoral Council of the Branch of Social Sciences" has been established for the study programme, which consists of the following members:

- Henrijs Kalķis, professor (Expertise: Engineering and Technology-Other Engineering sciences and Technology, including Food and Beverage Technology; Social Sciences-Economics and Entrepreneurship; Social Sciences - other social sciences, including interdisciplinary social sciences and military science);
- Romāns Putāns, assist. prof. (Expert: Social Sciences-Economics and Entrepreneurship; Expert of the project "Establishment of internationally competitive study programmes at the University of Latvia promoting the development of the Latvian economy" (LU project No 8.2.1.0/18/A/015), expert of PhD study programme "Human Factors, Occupational Safety and Occupational Health");
- Andrejs Cekuls, professor (Expertise: Engineering and Technology-Other Engineering sciences and Technology, including Food and Beverage Technology; Social Sciences-Economics and Business; Engineering and Technology-Electrical Engineering, Electronics, Information and Communication Technology);
- Biruta Sloka, professor (Expert: Social Sciences-Economics and Business);
- Jurģis Šķilters, professor (Expert: Natural Sciences-Computer and Information Sciences; Social Sciences-Psychology; Social Sciences-Media and Communication);
- Juris Burlakovs, assist. prof. (Expert: Natural Sciences-Earth Sciences, Physical Geography and Environmental Sciences; Engineering and Technology-Environmental Engineering and Energy; Engineering and Technology-Chemical Engineering; Social Sciences-Social and Economic Geography);
- Ženija Roja, assoc. prof. (Expertise: Medical and Health Sciences-Clinical Medicine; Engineering and Technology-Other Engineering sciences and Technology, including Food and Beverage Technology; Social Sciences - other social sciences, including interdisciplinary social sciences and military science);
- Tatjana Glaskova-Kuzmina, assist. prof. (Expertise: Engineering and Technology-Materials Science);
- Mart Reinvee, researcher (Expertise: Engineering and technology-Other engineering sciences and technology, including food and beverage technology; Social Sciences - other social

sciences, including interdisciplinary social sciences and military science).

This composition of the interdisciplinary social sciences doctoral council has been established taking into account the requirements of the Regulation of the Cabinet of Ministers of the Republic of Latvia No.1001 of 27.12.2005 "Procedures and Criteria for the Award of Doctoral Degree (Doctoral Dissertation)", especially Part III, Paragraph 5, as well as the conceptual developments on doctoral councils in the Order of the Cabinet of Ministers No.345 of 25.06.2020 On Conceptual Report on the "Introduction of a New Model of Doctoral Education in Latvia". The composition of the Doctoral Council in the field during the further implementation of the doctoral study programme after the accreditation of the study programme will be directed to the establishment of the Doctoral Council in accordance with Article 11, paragraph 3 of the Law on Scientific Activity of the Republic of Latvia (https://likumi.lv/ta/en/en/id/107337 -Law on Scientific Activity). The Doctoral Programme started in October 2022 and is currently in the 1st year of implementation. Therefore, the doctoral dissertation process will not be implemented until 2025. At the same time, the programme has taken all the preparatory and organisational steps for the *de facto* establishment of the dissertation council in accordance with the above-mentioned regulations of the Cabinet of Ministers and the LU, including, for the fulfilment of the requirements until the establishment of the dissertation council, the LU has an agreement with RTU (Agreement on the provision of dissertation defence in the field of "Interdisciplinary Social Sciences"). At the same time, in the approval of the doctoral dissertation council and implementation of the doctoral dissertation process, LU actively follows the current developments and is involved in the implementation of the new doctoral model in Latvia in accordance with the Order of the Cabinet of Ministers No 345 of 25.06.2020 "On the conceptual report "On the implementation of the new doctoral model in Latvia".

The process of study, research and scientific work of a doctoral student until the defence of the doctoral thesis is basically carried out in 4 main steps - 1) study programme completion for 3 years, which includes study courses and the elaboration of the doctoral thesis, including the annual discussion of the doctoral thesis in student colloquia with the participation of the thesis supervisor, programme supervisor and members of the Doctoral Thesis Board; 2) discussion of the thesis (presentation of a provisionally final version, preliminary defence) at an extended meeting of the Doctoral Board of the field, inviting both potential opponents of the defence and representatives of the field and academics; 3) the administrative process of the doctoral dissertation in accordance with the Doctoral Dissertation Procedure of the University of Latvia (https://www.lu.lv/gribustudet/studiju-programmas/doktorantura/promocija/ (only in Latvian)), including the preparation of the doctoral dissertation, the study programme, the doctoral council and the dissertation council, as well as the participation of the University of Latvia support structures in the administrative process; 4) the defence of the doctoral dissertation. A clear structure of the process, which is established at the LU, as well as close cooperation between academic and support units, which is successfully taking place in the programme, are essential for the successful, result-oriented, student-centred and content-focused progress of the dissertation process, as well as the support of the programme and the university to the PhD candidate, including in administrative, organisational and technical matters, which is also provided, including support for printing and binding of the dissertations and their abstracts.

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 criteria for the development and evaluation of the final thesis of students are based on the Regulations on Final Examinations at the University of Latvia, approved by the Decision of the Senate of the University of Latvia No.183 of 2011, as well as the minutes No.23-32/1-1 of the meeting of the Interdisciplinary Social Sciences Doctoral Council of the University of Latvia of 3 February 2023 and the minutes No.23/2-7 "Methodological instructions for the development and presentation of the thesis" of the Board Meeting of the LU Faculty of Chemistry, 14 February 2023.

Students choose the topic of their thesis independently, according to their interests, experience and ambitions. A PhD thesis is an independently carried out original scientific research that contains novelty and provides new insights into occupational health, ergonomics/human factors, occupational safety, occupational health, health promotion, using qualitative and quantitative research methods. Given that the PhD programme started in the academic year 2022/2023, the first theses will be submitted for defence from the end of the academic year 2024/2025.

Table 3.2.6.1 shows the thesis topics chosen by the students of the PhD programme "Human Factors, Occupational Safety and Health" in the academic year 2022/2023, which are closely related to the aim and objectives of the study programme.

Table 3.2.6.1.

Doctoral study programme "Human Factors, Occupational Safety and Health" students' selected thesis topics

No.	Thesis topic (in Latvian)	Doctoral thesis supervisor s
1.	Improving the occupational health of transport workers in the context of preserving working capacity	Dr.sc.admin., prof. Henrijs Kaļķis
2.	Improving the welfare strategy in relation to human factors and employee turnover in Latvian manufacturing organisations	Dr.sc.admin., prof. Henrijs Kaļķis
3.	The human factor in the Latvian business environment regarding occupational protection compliance	Dr.sc.admin., prof. Henrijs Kaļķis
4.	Remote Human Resource Management for improving work efficiency in the Latvian business environment, taking into account the importance of the human factor	Dr.sc.admin., prof. Henrijs Kaļķis
5.	The human factor in health workforce performance in Latvia	Dr.med., assoc. prof. Ženija Roja
6.	Psychosocial risks for remote and face-to-face office workers and the role of sleep hygiene in mitigating them - a new challenge for occupational health and safety at work	Dr.med., assoc. prof. Ženija Roja
7.	Competence model for forestry occupational health and safety professionals in Latvia	Dr.sc.admin., prof. Henrijs Kaļķis

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 resources and infrastructure of the University are adequate for the implementation of the study programme and, consequently, for the achievement of the results. The main dimensions of the resources and infrastructure provision of the LU for the implementation of the doctoral study programme, in addition to the high-level physical infrastructure, are the e-learning environment and the library. The regulatory framework for e-studies is laid down in the following internal normative documents of the LU:

- 08.2018. Order No.1/277 "Procedure for Development and Updating of Study Courses at the University of Latvia";
- 07.2015. Order No.1/190 "Procedure for Individual Examinations, Results Entry and Record Keeping at the University of Latvia";
- 12.2013. Order No 1/348 "On requirements for the development and use of e-courses".

The University has its own *e-learning environment* - a website (https://estudijas.lu.lv/), where part of the University's study process is implemented. The e-learning environment of the DSP "Human Factors, Occupational Safety and Health" is organised in accordance with best practice requirements for e-learning environments, as well as with the experience of leading universities abroad. The existing e-infrastructure at the University of Latvia offers a wide range of possibilities for their use.

The LU Library is included in the Ministry of Culture's Library Register (BLB1000) and accredited as a library of national importance until 2027 (Ministry of Culture accreditation certificate No 22C). The Library of Natural Sciences houses collections in the fields of human factors, occupational safety, ergonomics, occupational health and safety, which are accessible to students at any time. The Library of Natural Sciences has more than 100 workstations, including 20 computer workstations.

The following LU Library classes are provided for students of doctoral study programmes: 'Introduction to the process of scientific publishing' (90 min.), 'Bibliography and citation management tools' (90 min.), 'Use of Web of Science and Scopus databases in study and research work' (90 min.). For academic and scientific staff: 'Bibliography and citation management tools' (90 min.), 'Using Web of Science and Scopus for studies and research' (90 min.), 'Publication input and editing the publication list in LUIS' (90 min.), 'Depositing research results in the LU e-resources repository' (90 min.). The provision of the LU Library, including for the support of the doctoral programme implementation, is described in detail in the self-evaluation report of the field of study. Among the most recent publications (books), there are publications that are held in multiple copies in the LU Library, which means that a significant number of students will be able to use them outside the LU Library premises. The selection of titles also revealed that titles published more than five years ago are relevant to the doctoral programme Human Factors, Occupational Safety and Health (Table 9). In terms of type of publication, books dominate with almost 90% (number of titles) of all types of publication.

In line with the LU Strategic Plan, the LU Library is increasing the share of e-resources and developing remote access to e-resources. Modernising access to electronic resources, the LU Library has introduced a state-of-the-art web service *Primo Discovery* and *SFX*. Overall, **39 e-resource platforms** are available at the University (both **e-books platforms** – *VLeBooks, ProQuest Ebook Central*, and **e-journal databases** – *Cambridge Journals Online (archive available until 31.12.2018.), Emerald eJournals Premier (archive available until 22.04.2020.), JSTOR I-XII, XIV,*

XV and Life Sciences Collections, Oxford Journals Online, Sage Journals Online, ScienceDirect, SpringerLink Contemporary Journals, Taylor & Francis Social Science & Humanities Library, *Physical Review Journals* and separately purchased e-journals and **reference resources** – *LETA online news, LETA Arhīvs un Nozare.lv, Letonika*, both **tools** – *SAGE Research Methods, Passport, Orbis, Overleaf Commons, MarketLine,* and **mixed-format databases** – *ClinicalKey*, *European Pharmacopoeia, LVS Latvian Standards Online Library, OECD iLibrary, ProQuest Dissertations & Theses Global, ScienceDirect, Scopus, Time Higher Education, UpToDate, Web of Science Core Collection*). They offer a total of 15 876 full-text e-journals (including individual subscriptions), around 201 060 e-books, and almost five million full-text world theses and master's theses. The LU has 132 verified open access databases with multi-format materials.

The LU Library evaluates and analyses the usability of subscribed databases twice a year. The statistics of the e-resources subscribed to by the LU Library for 2022 show that the overall usability has increased by 6.88% compared to 2019. A significant increase in individual usability can be observed for foreign multidisciplinary databases, a decrease - for Latvian databases *LETA* and *Letonika* (soc., hum. strand), among the citation databases the significant increase in the use of Scopus (+75.67%) should be highlighted. The LU Library regularly provides trial access to various databases, with an average of 15 trial accesses per year.

The LU Library, in cooperation with the LU Information Technology Department, provides free online access to the LU e-resources repository http://dspace.lu.lv/. A mobile version of the repository is also available for users' convenience. Currently, the e-resource repository contains more than **500** publications for the doctoral programme "Human Factors, Occupational Safety and Health".

Multidisciplinary e-resources, e-book platforms, e-resources in selected disciplines subscribed by the University, which include materials for the PhD programme "Human Factors, Occupational Safety and Health"- Cambridge Journals Online, EBSCO Central & Eastern European Academic Source, Emerald eJournals Premier, JSTOR, Latvian Standard, LETA Ziņas, Arhīvs un Nozare.lv, Oxford Journals Online, ProQuest Dissertations & Theses Global, ProQuest Ebook Central Academic Complete Collection, SAGE Journals, Sage Research Methods, ScienceDirect, Scopus, SpringerLink Contemporary Journals, Taylor & Francis Social Science & Humanities Library, Web of Science, ClinicalKey, EBSCO PsycARTICLES, HeinOnline, Jurista Vārds, MarketLine, Orbis, Passport, Thomson Reuters Westlaw, UpToDate, Westlaw UK, VLeBOOKS, ProQuest Ebook Central Academic Complete Collection, ArXiv.org, BMC, BMJ Open, Bookyards, Bookboon, Cogent OA, Cogprints, CORE, DialNet, De Gruyter Open , Directory of Open Access Books (DOAB), Directory of Open Access Journals (DOAJ), EBSCO Open Dissertations, Eurostat Data, F1000 Research, Free Medical Journlas, FreeBooks4Doctors, GitHub, Google Scholar, HighWire Press, Hindawi, IEEE Open, IGI Global Open Access Journals, IMF eLibrary, IPI eBooks, Journals for Free , Karger Open Access, Likumi.lv, Lippincott Open Access Journals, Central Statistical Office of the Republic of Latvia, MedKnow, OAPEN, Open Access Research Database (OARD), Periodika.lv , Science Books Online, Springer Open, The Cleveland Clinic Disease Management Project, TRIP, Health Statistics Database, Wiley Open Science, WordlWideScience.org, Zenodo.

The LU *House of Nature* has all the necessary infrastructure and facilities to carry out doctoral studies. There are five computer rooms (the largest has a capacity of 20 workstations). Both Windows and Linux operating systems are available in the computer rooms. Microsoft Office applications, statistical software (R, SPSS, PC-Ord) and domain-specific software are available. The LU offers students and staff the possibility to obtain Microsoft Office 365 ProPlus and SPSS software for a private computer free of charge for the duration of their studies (or employment contract). For teaching and research purposes, specific application software (ArcGIS, Bemese, CRYSTAL14, CrysTraMo, DFHBF, Eviews, FiMar, Geomatica, Idrisi, Mathematica, Matlab, Photomod, WUFI) is also available.

The programme has a range of practical applications of equipment, measuring devices, record-keeping and data-processing software related to human factors, occupational safety and health. The faculties involved in the implementation of the DSP "Human Factors, Occupational Safety and Health" have at their disposal modern equipment, which in many cases is unique not only at the national level, but also in the Baltics or the wider region, including, for example, in cooperation with the Faculty of Computer Science of the University of Latvia, support and equipment available to PhD students in the Perceptual and Cognitive Systems Laboratory of the Faculty of Computer Science of the University of Latvia. In addition, access to the shared facilities of the National Research Centres located in various Latvian research institutions is provided for research. A cooperation agreement has been signed with the Estonian University of Life Sciences, which will provide an important social and engineering contribution to the DSP Human Factors, Occupational Safety and Health. The Estonian University of Life Sciences is open to more cooperation and will offer PhD students research in specialised laboratories: the Laboratory of Work Technology, the Laboratory of Physical and Mental Workload and the Laboratory of Occupational Safety.

Conclusion: The resources available for the doctoral study programme, including the resources in the library collection as well as the general and programme-specific infrastructure and equipment of the University of Latvia, are adequate and contribute to the implementation of the doctoral study programme "Human Factors, Occupational Safety and Health" and the development of scientific research.

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).

The PhD students at the University have the opportunity to participate and gain experience in both research activities and projects within the programme. So far, PhD students actively participate and prepare abstracts in international conferences such as the 81st International Scientific Conference of the University of Latvia 2023, Human Factors, Ergonomics and Working Environment, Industrial Engineering section. Active involvement in the organisation of Erasmus week, attracting foreign faculty members from different universities such as Tartu University of Life and Sciences, Tallinn University of Technology, University of Pennsylvania in America.

Doctoral students have access to both the necessary subscription e-resources and measurement equipment. Access to databases, scientific information, and publications in the field are provided and updated. It should be emphasised that a PhD student who has completed his/her studies and is still working on completing his/her thesis is also provided with access to the scientific information databases of the University. Doctoral students have the opportunity to publish the results of their research in 2 scientific journals that are relevant to the profile of the programme and funded by the LU: "Humanities and Social Sciences: Latvia" and "Journal of Economics and Management Research". The printed information resources in the collection of the LU Library in terms of their content and number, as well as the electronic resources available in the subscribed databases of the LU and freely accessible online, are adequate for the establishment of the doctoral study programme "Human Factors, Occupational Safety and Health" and for the development of scientific research. The resources available at the LU for the implementation of the study programme are very extensive. In addition to traditional information resources (books, journals, etc.), the LU provides access to more than 170 000 subscribed e-resources in various fields of science. To increase the diversity of study courses, new e-learning courses are developed and introduced and

existing methodological materials are updated and modernised in the e-learning environment, including materials in English. The principles of the LU Information System (LUIS) foresee that all study courses of all study programmes are placed in e-learning, ensuring the implementation of LU Order No 1/348 (10 December 2013). The content of the e-learning courses is developed and updated in accordance with the requirements of the LU Order No 1/277.

The programme has a range of practical applications of equipment, measuring devices, record-keeping and data-processing software related to human factors, occupational safety and health. The faculties involved in the implementation of the DSP "Human Factors, Occupational Safety and Health" have at their disposal modern equipment, which in many cases is unique not only at the national level, but also in the Baltics or the wider region, including, for example, in cooperation with the Faculty of Computer Science of the University of Latvia, support and equipment available to PhD students in the Perceptual and Cognitive Systems Laboratory of the Faculty of Computer Science of the University of Latvia. In addition, access to the shared facilities of the National Research Centres located in various Latvian research institutions is provided for research. A cooperation agreement has been signed with the Estonian University of Life Sciences, which will provide an important social and engineering contribution to the DSP Human Factors, Occupational Safety and Health. The Estonian University of Life Sciences is open to more cooperation and will offer PhD students research in specialised laboratories: the Laboratory of Work Technology, the Laboratory of Physical and Mental Workload and the Laboratory of Occupational Safety.

Overall, the study and research base of the doctoral study programme, including the design of the study programme, the structure of the content, the courses and additional opportunities supporting research activities, the qualifications and expertise of lecturers and guest lecturers, opportunities for students' participation in research, the support of the University for research activities, including grants for doctoral students, available literature resources, available equipment, measuring devices, the availability of equipment, instruments, facilities, data analysis software, support for their application, cooperation with other departments of the University, cooperation with other institutions, including those abroad, and the structured dissertation process are fully adequate and contribute to the implementation of the doctoral study programme "Human Factors, Occupational Safety and Health" and the development of scientific research both within the programme and in the scientific field at the University, in Latvia and in the world.

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).

Programme income

To provide the necessary funds for the implementation of the doctoral study programme "Human Factors, Occupational Safety and Health", the University of Latvia uses tuition fees. An overview of the (planned) distribution of students by type of study and annual income is presented in Table 3.3.3.1.

Table 3.3.3.1.

Number of students and annual income

Type of studies	Tuition fee	EU/EEA/SC* paid	Other** paid	Total	Paid LV and EU/EEA/SC citizens	Other**	Annual income
	number	number	number	number	EUR	EUR	EUR
FTregular (Latvian)	**15**			**15**	**2`500**		**37`500**
FTregular (English)	**5**	**3**	**2**	**10**	**2`500**	**3`500**	**14 500**
Total				**25**			**52 000**

* EU/EEA/SC- European Union / European Economic Area / Swiss Confederation

** Other - outside EU/ EEA/ Swiss Confederation

Programme costs

In order to estimate the amount of funds required for financial support, the LU calculates the cost of study programmes according to a methodology developed by the LU, which takes into account the costs of providing the study process as described in the section "Financial Support for StF" and information on the study programme plan, teaching staff involved, planned number of students, etc., thus ensuring the reliability of the forecasts.

Programme costs for **full-time regular studies in Latvian (FTregular)**

For the calculation of the study programme "Human Factors, Occupational Safety and Health", the implementers of the FT regular studies use the data for the academic year 2022/2023 - the number of students as of 01.10.2022, the study plan/norms and the structure of the academic staff involved. Based on these data, the total annual programme costs are EUR 37005 and their structure (percentage breakdown) is shown in Table 3.3.3.2.

Table 3.3.3.2.

Percentage breakdown of costs in the study programme

Expenditure heading	% of total
Staff costs	68%
General staff	2%
Other costs	
Infrastructure costs	3%
Property and services	1%
Indirect costs	26%
TOTAL COSTS	**100 %**

Figure 3.3.3.1 visually shows the cost of the study programme (vertical axis) depending on the number of students (horizontal axis) with a red line and the weighted average tuition fee (green line).

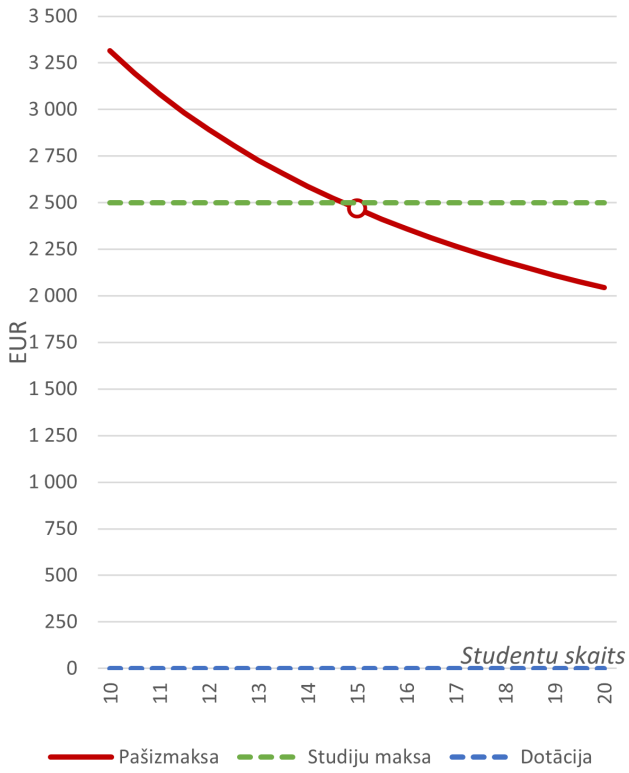

Fig. 3.3.3.1. ***Cost per student of the study programme "Human Factors, Occupational Safety and Health"***

Based on the cost structure and the total number of students in the first year of the programme (7), the cost of the programme per student is EUR 2 467 per year. In the following years, with the implementation of the PhD programme in all 3 years of the curriculum and the supervision of the theses, the minimum number of fee-paying students for the programme to be cost-effective should be at least 15 (intersection of the red and green lines).

Programme costs for **full-time regular studies in English (FT regular)**

For the implementation of the study programme in English, it is planned to attract 5 students during the 3-year cycle, including students from the EU, EEA and Switzerland, as well as from other countries, such as the USA and India. Based on these data, the total annual costs of the programme are EUR 13850 and their structure (percentage breakdown) is shown in Table 3.3.3.3.

Table 3.3.3.3.

Percentage breakdown of costs in the study programme

Expenditure heading	**% of total**
Staff costs	68%
General staff	2%
Other costs	
Infrastructure costs	3%
Property and services	1%
Indirect costs	26%
TOTAL COSTS	**100 %**

Figure 3.3.3.2 visually shows the cost of the study programme (vertical axis) depending on the number of students (horizontal axis) with a red line and the weighted average tuition fee (green line).

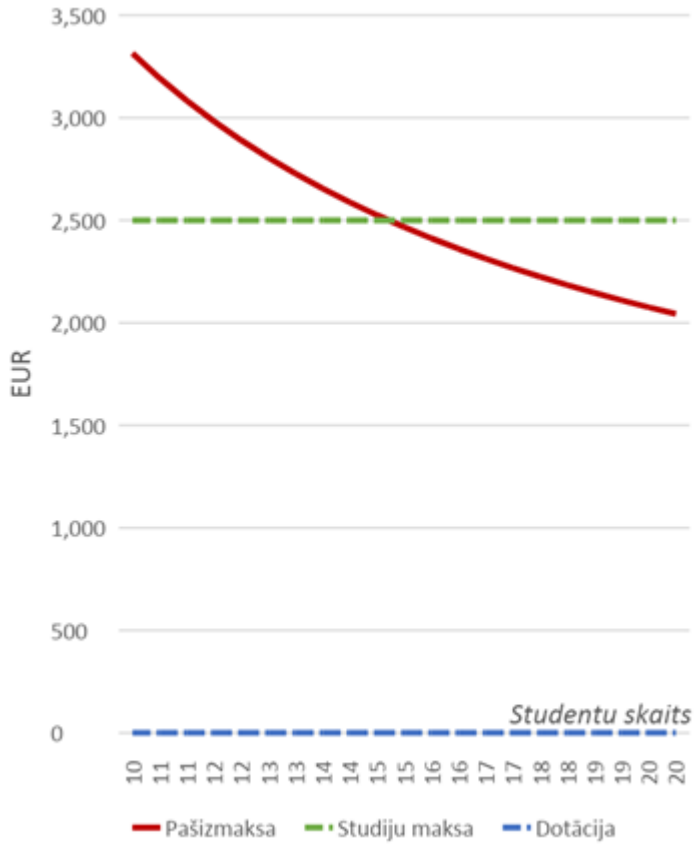

Fig. 3.3.3.2. ***Cost per student of the study programme "Human Factors, Occupational Safety and Health"***

Based on the cost structure and the total number of projected students, the cost of the programme per student is €2 785 per year. In the following years, with the implementation of the PhD programme in all 3 years of the curriculum and the supervision of the theses, the minimum number of fee-paying students for the programme to be cost-effective should be at least 15 (intersection of the red and green lines).

Summary of programme income and costs

Table 3.3.3.4 summarises the projected number of students, programme income, expenditure, outcome and profitability (outcome vs. income, %).

Table 3.3.3.4.

Programme result

Type of studies	Total number	Annual income EUR	Annual expenditure EUR	Cost-price EUR	Result EUR	Profitability %
FT regular (Latvian)	15	37`500	37`005	2`467	495	*1%*
FT regular (English)	5	14500	13850	2785	650	*4,5%*

Total	**25**	**52000**	**50855**	**1145**	*2,2%*

Conclusion: The PhD programme “Human Factors, Occupational Safety and Health” is cost-effective. Overall, the projected income exceeds expenditure and does not require support from other financial resources.

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 DSP "Human Factors, Occupational Safety and Health" involves 17 academic staff members. Of the academics involved, 7 are professors, 4 associate professors, 5 assistant professors and 1 researcher. All the academic staff involved in the implementation of the DSP have a PhD in: Biology (1), Design (1), Economics (1), Philology (1), Philosophy (1), Geography (1), Geology (1), Engineering (3), Medicine (3), Pedagogy (1) and Management (3). The current LSC expert status is held by 9 academic staff members, 3 of them (Prof. H. Kalkis, Assoc. Prof. Z. Roja, Assoc. Prof. M. Reinvee) with expert status in the field of Social Sciences - *other social sciences, including interdisciplinary social sciences and military science*.

The compulsory and restricted elective part of the programme is implemented by 5 professors and 3 associate professors who have been elected to academic positions at the University (see Table 3.4.1.1).

Table 3.4.1.1.

List of academic staff elected to academic positions at LU

Name, surname	LU Academic position
Henrijs Kaļķis	Professor
Biruta Sloka	Professor
Andrejs Cekuls	Professor
Jurģis Šķilters	Professor
Indra Karapetjana	Professor
Ženija Roja	Associate professor
Līga Zariņa	Associate professor
Līga Ozoliņa-Molle	Associate professor

The qualifications, academic experience and scientific and practical expertise of the teaching staff are a key factor in achieving the study results. The teaching staff, qualified and competent experts and scholars in their field, contribute to the students' understanding and skills in both the human

factors and ergonomics topics in general and in the thesis topics, helping them to understand the theoretical and practical issues, including new aspects of science and research, as well as developing their critical thinking, analytical skills and top-level research skills. Teaching staff, through their qualifications and expertise, assist students by providing feedback and advice on the structure, methods, data analysis and other aspects of the work. Teaching staff also contribute to students' professional development by sharing their experience, knowledge and network.

The English language skills of the programme's teaching staff allow them to teach courses in English. The knowledge of the national language of the academic staff employed in the study programme complies with the Regulations on the Scope of Knowledge of the National Language and the Procedure for Testing the Proficiency in the National Language for Professional and Official Duties and allows for the teaching of study courses in the national language (see Annex 27.4).

A list of the staff involved in the implementation of the study programme is attached in Annex 6, indicating the academic degree, position, study courses implemented.

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.

No changes during the reporting period.

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).

The number of scientific publications of the faculty members involved in the doctoral programme is fully in line with the quality of doctoral studies. The total number of publications of the doctoral programme staff is 334 scientific publications (for the last 6 years, see Annex 9) in international journals, including peer-reviewed ones, 2 scientific publications in Latvian journals, 25 textbooks and teaching aids and 16 peer-reviewed scientific monographs or articles in collective monographs. The number of publications is summarised in Table 3.4.3.1 and more detailed information can be found in the CVs of the teaching staff (Annex 7) and in the list of publications (Annex 9).

Table 3.4.3.1.

Name, surname	Number of publications in international journals, including peer-reviewed	Number of publications In Latvian publications	Textbooks and teaching aids	Peer-reviewed scientific monographs or articles in collective monographs s
Dr.med., assoc.prof. Ženija Roja	32	-	5	2
Dr.sc.admin., prof. Henrijs Kaļķis	56	-	7	1
Dr.oec., prof. Biruta Sloka	16	-	2	2
Dr.biol., assoc.prof. Līga Ozoliņa-Molla	5	-	-	-
Dr. phil., prof. Jurģis Šķilters	41	-	5	2
Dr. geol., assoc.prof. Līga Zariņa	9	-	-	-
Dr.sc.ing., assist.prof. Tatjana Glaskova-Kuzmina	8	-	-	-
Dr.sc.admin., prof. Andrejs Cekuls	16	-	-	2
Dr.art. Aija Freimane	3	-	-	-
Dr.sc.admin., doc. Romāns Putāns	6	-	-	-
Dr.med., prof. Eda Merisalu	26	-	1	3
Dr.sc.ing. (PhD) Märt Reinvee	6	-	-	-
Dr. prof. Victor Oltra	12	-	2	2
Dr. med. Romualds Ražuks	4	-	1	-
Dr.geog. Juris Burlakovs	75	-	2	2
Dr.philol. Indra Karapetjana	19	2	-	-

Nine members of the academic staff have a valid LSC expert status, four of them (prof. H. Kalķis, assoc. prof. Ž. Roja, M. Reinvee, Dr.sc.admin., R. Putans, assoc. prof., have expert status in Social sciences - other social sciences, including interdisciplinary social sciences and military science. According to the information available in the Scopus database, the faculty members involved in the implementation of the study programme have indexed a total of 350 scientific publications in the period from 2015 to 2022 (the list of publications of each individual faculty member in the last six years is attached as Annex 9).

Key scientific publications during the reporting period include:

- Roja, Z., Freiberga, P., Kalkis, H. (2022). Muscle Fatigue for the Health Staff in Hospital

Operating Unit. In: Waldemar Karwowski, Henrijs Kalkis and Zenija Roja (eds) Social and Occupational Ergonomics. AHFE (2022) International Conference. AHFE Open Access, vol 65. AHFE International, USA. http://doi.org/10.54941/ahfe1002659
- Pastare D., Roja Z., Kalkis H., Roja I. Psychosocial Risks Analysis for Employees in Public Administration. Agronomy Research 18(S1). https://dspace.emu.ee/xmlui/bitstream/handle/10492/5649/AR2020_061_Pastare_V_doi_076.pdf?sequence=1&isAllowed=y
- Roja Z., Kalkis H., Tetere I., Roja I. Stress at Work and Physical Load in Professional Sport. "Advances in Physical Ergonomics and Human Factors", ed. R. Goonetilleke, W. Karwowski. R. S. Goonetilleke and W. Karwowski (Eds.): AHFE 2018, AISC 789, pp. 335–342, 2018. https://doi.org/10.1007/978-3-319-94484-5_35
- Roja Z., Kalkis H., I. Roja, Zalkalns J., Sloka B. Work strain predictors in construction work. Agronomy research, Volume 15 (X), 2017, p. 2090-2099
- Kalkis H., Roja Z. Strategic Model for Ergonomics Implementation in Operations Management. Journal of Ergonomics, Volume 6, Issue 4, 6:173
- Ivanova, R. Merijs Meri, J. Zicans, A. Grigalovica, Z. Roja, I. Reinholds. Impact of non-functionalized and ionic liquid modified carbon nanotubes on mechanical and thermal properties of ethylene-octene copolymer nanocomposites. IOP Conference Series: Materials Science and Engineering Vol.111, N 1, 2016: article nr.: 012019.
- Roja, Z., Reinholds, I., Zicans, J., Meri, R.M., Kizane, G., Vugule, G. Improvement of mechanical and dielectric properties of ethylene–octene copolymer by multi-walled carbon nanotubes functionalized with poly(2,2′-bithiophene) (2019) Polymer Composites, 40 (10), pp. 3971-3980
- Justamente, I., Raudeniece, J., Ozolina-Moll, L., & Reihmane, D. Comparative Analysis of the Effects of Daily Eating Habits and Physical Activity on Anthropometric Parameters in Elementary School Children in Latvia: PACH Study. Nutrients, 2020, 12 (12), 3818, DOI: 10.3390/nu12123818

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).

The academic staff of the doctoral study programme "Human Factors, Occupational Safety and Health" is actively involved in scientific activities, including scientific research projects:

Projects of Dr. phil., prof. Jurģis Šķilters:

- Project leader in the diversity and valence of perceptual modalities, research project of the University of Latvia Foundation in memory of Jānis Eglīte. Source of funding. Total project amount: n/a;
- From 2019 Member of Research on Reading Network established by Universities Erlangen-Nurnberg, Mainz and Stiftung Lese: Netzwerk Leseforschung. Source of funding: DFG (Deutsche Forschungsgemeinschaft). Total project amount: n/a;
- Member of the Supersemantics Network (chaired by Prof. P.Patel-Grosz (Oslo) and Prof. P.

Schlenker (Sorbonne / New York University). Source of funding: Oslo University in cooperation with other universities. Total project amount: n/a;
- Member of EU Research Network and ITN (Initial Training Network) e-LADDA (Early Language Development in Digital Age), coordinated by Norwegian University of Science and Technology, Trondheim), 2019. Source of funding: European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie Actions grant agreement No 857897. Total project amount: n/a;
- NATO Strategic Communication Excellence Centre research project *Humour as strategic communication tool: analysis and methodology*, 2019, (member of a research group);
- Tilde and the University of Latvia in the collaborative project (" Practical oriented research"; project application No.1.1.1.1/16/A/215) "Neural Networks for Flexible Natural Language Processing", 2017 - 2019, (leading researcher). Source of funding: ERAF. Total project amount: 484 384,04 EUR;
- Research project "Cognitive and behavioural aspects of human-computer interaction in the development of electronic services and electronic learning materials", University of Latvia, EVF and SIA RIX Technologies; project number: ESP-16/19., 2017-2018, (lead researcher). Source of funding: Effective Collaboration Project. Total project amount: 100 000,04 EUR.
- ESF project "Research on the physiology of visual overload and development of a stress diagnostic methodology" cognitive science, communication science), Faculty of Physics and Mathematics, University of Latvia, 2014-2015, (principal investigator). Source of funding: ESF. Total project amount: n/a
- ERAF project "Investigation of visual and visual perception disorders in school-age children and development of diagnostic methods", Faculty of Physics and Mathematics, University of Latvia, 04.2013. - 08.2013.2013., (researcher). Source of funding: ERAF. Total project amount: n/a
- Scandinavian, Dutch, Finnish, Estonian and British project on Environmental and Spatial Perceptual Communication (*NordFosk* Research Support Network) 2011-2015, (Latvian research team leader). Source of funding: Nordfosk. Total project amount: n/a
- Evolution of Semantic Systems (EoSS) study, 2010-2014, Max Planck Institute (The Netherlands), (Latvian team leader). Source of funding: Max Planck Gesellschaft. Total project amount: n/a

Projects of Dr. geol., assoc.prof. Līga Zariņa:

- Cognitive and formal representation of spatial and temporal structures. University of Latvia, Faculty of computing, Post-doc projects grant agreement No 1.1.1.2/VIAA/3/19/506, 2020-2023. Role: researcher.
- Cognitive and Behavioural Aspects of Human and Computer Interaction for the Development of Electronic Services and Electronic Learning Materials. University of Latvia, Faculty of Business, Management and Economics and RIX Technologies Ltd. joint research project (Project: ESP-16/19), 2017 – 2019. Role: researcher.
- Topological modelling of structural alignment: a topological and experimental analysis of information visualization. University of Latvia Foundation (Project ID: 2191). 2017 – 2018. Role: project coordinator, researcher.

Projects of Dr.sc.ing., assist.prof. Tatjana Glaskova-Kuzmina *(Five major projects over the last 9 years):*

- LSC project No. A69-DL/1733, "Sustainable biopolymer nanocomposites durability under

combined effects of mechanical stress and environmental ageing", researcher (01.01.2021.-31.12.2021.). Total project funding: EUR 100 389. Source of funding: State budget funding.

- H2020 project “Advanced polymer composites filled with novel 2D nanoparticles (NANO2COM)”, researcher (01.01.2021.-31.05.2021.). Total project funding: 385 000 EUR. LU share: 210 000 EUR (EU funding: 178 500 EUR; State budget funding 31 500 EUR).
- "Environmental Effects on Physical Properties of Smart Carbon Nanofiller-Modified Composites and Fiber Plastics for Structural Applications", ERDF project Nr.1.1.1.2/VIAA/1/16/066, project leader: Dr. Sc. Ing. Dr. Tatjana Glaskova-Kuzmina (01.01.2018.-31.12.2020). Total project funding: EUR 132 713,49. EU funding: 112 806,46 EUR; State budget funding: 13 271,34 EUR; LU funding: 6 635,69 EUR;
- "Development of Nanomodified Polyolefin Multilayer Extrusion Products with Improved Performance Properties", ERDF project No 1.1.1.1.1.1/16/A/141, project leader: Dr. Sc. Ing., Andrejs Aņiskevičs (01.03.2017-31.12.2017). Total project funding: 485 272,00 EUR (ERDF 412 481,20 EUR; State Budget funding 36 395,40 EUR; University of Latvia funding 12 140,95 EUR, contribution in kind: 24 254,45 EUR).
- "Implementation of a support action to improve the multifunctionality of advanced polymer composites using nano- and micro-technologies and to raise the profile of the Institute worldwide". ERDF project No. 2DP/2.1.1.2.0/14/APIA/VIAA/017, 01.02.2015- 31.07.2015. Project leader. D. Dr. Vairis Štrauss. Total project amount: 83 411 EUR (EU funding: 83 411 EUR)

Projects of Dr.sc.admin., prof. Andrejs Cekuls:

- ErasmusX project, Project Reference: 2018-1-ES01-KA203-050886, Expert, 2019-2021. Source of funding: EU Grant. Total project sum: 263 155,00 €
- “HEI Innovation for Knowledge Intensive Entrepreneurship” (HIVE) project identification No. 220818, Expert, 2023, Source of funding: European Institute of Innovation and Technology. Total project amount: 200 000,00 €

Projects of Dr.art. Aija Freimane:

- 2017 - 2020 Project management of the post-doctoral research "Design socio-economic impact identification system for transformation of knowledge for intensive economy in Latvia", No. 1.1.1.2./VIAA/1/16/125 of the Cabinet of Ministers Regulation No.50 "Operational Programme "Growth and Employment" within the framework of the Specific Support Objective 1.1.1 "To increase the research and innovation capacity of Latvian scientific institutions and their ability to attract external funding by investing in human resources and infrastructure" within Measure 1.1.1.2 "Postdoctoral research support".
- 2012 - 2013 European Social Fund project No 1DP/1.4.1.2.4./APIA/NVA/68 and contract No 5-57-2/21/651, from 07.06.2012 - 09.11.2012 for the implementation of the motivation programme "Improvement of social and functional skills" within the ESF project "Development of alternative social services in Koceni municipality" (project financial administration LVL 25821,91).
- 012 - 2013 European Social Fund project No.1DP/1.4.1.2.4./APIA/NVA/68 and contract No.5-57-2/21/652, from 07.06.2012 - 09.11.2012 and No.5-19.2./63, from 26.03.2013 - 10.04.2013 Motivation Programme "Promotion of Social Inclusion and Employment" within ESF project "Development of Alternative Social Services in Koceni Municipality" (project financial administration LVL 35022,77).
- 2009 - 2011 Project Manager of the Professional Development Education Programme

"Professional Basic Education Programme for Teachers in Design" at the Art Academy of Latvia, programme development and management; 2009/0208/1DP/1.2.1.1.2./09/IPIA/VIAA/005 (project financial administration LVL 179 591,40).

- 2011 - 2012 "He who studies the past - blesses the future! "; for the measure "Diversification of the rural economy and promotion of quality of life in the area of implementation of local development strategies", "Purchase and installation of machinery, equipment, information technology and software and creation of infrastructure for diversification of social activities (including training and interest clubs, culture, environmental protection, sports and other leisure-time activities) for local people"; Project Manager for the action plan activity "Establishment and improvement of leisure time infrastructure for local people" of the association "Northern Gauja Rural Partnership"; 10-09-LL03-L413201-000005, (project financial administration LVL 13 002).
- 2009 - 2010 Technology Transfer Focal Point in Design, Development of the Design Innovation and Technology Laboratory, TPK in Design and Project Manager; TPK/2.1.2.1.2/08/01/002.
- 2007 ESF and SIF motivation programme for social risk groups "For You and Yourself - Doing it Together!" (Kauguri municipality in cooperation with Diklu municipality) project no. VPD1/ESF/NVA/06/GS/3.3.1.1./0135/78, project coordinator, project management, development: (project financial administration LVL 42 360 37).

Projects of Dr.sc.admin., assist. prof. Romāns Putāns:

- 2019 (Apr.) - 2022 (Mar.). Project Quality Manager in the RSU ERASMUS+ project "Risk Management and Prevention of Antibiotics Resistance, PreventIt". Lead partner - Chitkara University, India. Source of funding: European Commission Erasmus+ programme (2014-2020). Total project budget: 988 201.00 EUR.
- 2018 (Nov.) – 2021 (Oct.). Project researcher in the EU Erasmus+ project at LU “Knowledge Alliance “Human Resources and Organizational Development - Innovative Business Transfer Models for Small and Medium-sized Enterprises in the Baltic Sea Region””. Project aims to build a strong alliance in the field of human resources and workplace innovations. Through intense cooperation, trainings that impart skills and abilities in the area of workplace innovations are developed and tested, R&D tasks in companies are carried out and a dual bachelor study course is designed. https://ka4hr.eu/,
- https://www.lu.lv/cets/research/euproject/kaforhr/. Source of funding: European Commission Erasmus+ KA2. Total project budget: 845 572.00 EUR
- 2016 (Oct.) – 2019 (Jun.). 36 months. Project researcher. EU Erasmus+ programme`s project “Age Factor”. Project aims at increasing the competences of educators and professionals in the adult (50+) education field (digital and transversal skills) to promote personal and professional branding and credibility, and create socia reputation. Project actions will be based on labour markets` and target groups` skills` researchers across Europe (10 partners, 9 EU countries). Source of funding: European Commission Erasmus+. Total project budget: 323 670,00 EUR.
- 2015 (Jun.) – 2016 (Mai.), 11 months. Project Coordinator, Researcher. International scientific project "Volunteering - Code of Active Citizenship" under EU Programme “Europe for Citizens”. The main activities during the project implementation in Latvia were the conduction of research about the experiences and perspectives of the voluntary work in Latvia as well as the organization of Conference and Fair. Source of funding: EU Programme “Europe for Citizens”. Total project budget: 8`576,07
- 2014 (Sept.) – 2017 (Sept.). 36 months. Project coordinator. Erasmus+ Jean Monnet activities

– Support to Institutions and Associations. Support to the Latvian European Community Studies Association. Project`s title: “The Wide Scope of European Studies: New Trends”. The objective of the project is to develop, promote the exchange of ideas, knowledge and research information to ensure greater visibility of theoretical and practical problems related to the European integration. The project builds a network and a platform for cooperation between universities, research centres, governmental, non-governmental institutions and civil society. Source of funding: Erasmus+ Jean Monnet activities – Support to Institutions and Associations. Total project budget: 109`000 EUR.

- 2012 (Jan.) – 2014 (Dec.), 36 months. Researcher. EU Interreg IVC programme`s project “Labour Pus”. The project created pool of good case integration examples, developed tools and policy recommendations (http://labourplus.eu/) to enhance active labour market policies and define strategies to improve the labour integration and employment of the disadvantaged social groups. Source of funding: EU Programme Interreg IVC. Total project budget: 1`694`704,00 EUR.
- 2012 (Jun.) – 2014 (Jun.), 24 months. Researcher, ESF project “Latvian Labour Market Short Term Forecasts”. Comprehensive combined researches using quantitative and qualitative research methods to establish short-term (6-12 months) forecasts on demand and supply of workforce in the Latvian labour market. Source of funding: Eiropas Social Fund, LR NVA. Total project budget:334 631,15 LVL.
- 2011 (May) – 2013 (Apr.), 24 months. Researcher. EU INTERREG 2007-2013 Programme`s project “Central Baltic Job Ferry”. Comprehensive, detailed researches on labour markets and qualification recognition to increase the cross-border information flow. As a result an online platform was built to facilitate the information search and exchange about Top50 demanded professions in each of the Central Baltic countries` labour markets (http://cbjobferry.lu.lv/). Source of funding: Central Baltic INTERREG IVB Programme.  Total project budget:720`000 EUR.
- 2011 (Sept.) – 2014 (Sept.). 36 months. Project coordinator. Establishment and implementation of the Jean Monnet Centre of Excellence. Project`s title: “Eastern Partnership in a Global Environment: Sharing European Excellence in Inter- Disciplinary Research and Teaching”. The project aimed at strengthening interdisciplinary research and teaching on European studies in Latvia, building a cooperative network in sharing EU values and contents with Eastern Partnership counterparts in the context of the EU external dimension. Source of funding: EU Erasmus+ Jean Monnet Activities. Total project budget: 66`000 EUR

Projects of Dr.med., assoc.prof. Ženija Roja:

- 2021 - 2023 LU project No N.8.2.1.0/18/A/015 "Establishment of internationally competitive study programmes at the University of Latvia that contribute to the development of the Latvian economy" within the DSP "Human Factors, Occupational Safety and Occupational Health".
- 2020 - 2023 Postdoctoral project "Ergonomic load indicators in modern technological work environment and possibilities of their improvement in socio-technical system "Man-machine-environment"" (Project contract number: 1.1.1.2/VIAA/3/19/546), scientific consultant.
- 2014 - 2018 National Research Programme Multifunctional materials and composites, photonics and nanotechnologies, leader of the sub-project "Nanocomposite materials" (Total project budget: 0.75 mil. Eur)
- 2010 - 2013 Executor of the National Research Programme 2 "Development of innovative multifunctional materials, signal processing and informatics technologies for competitive science-intensive products" LU subproject 3.2 "Nanostructured self-assembled polymer

composites containing modifiers and their corresponding technologies for applications in intelligent materials and devices" (Total project budget: 0,75 milj. Eur).

Projects of Dr.sc.admin., prof. Henrijs Kaļķis:

- 2021 - project "Establishment of Internationally Competitive Study Programmes at the University of Latvia Promoting the Development of Latvian Economy" (project No 8.2.1.0/18/A/015), expert of doctoral study programme "Human Factors, Occupational Safety and Occupational Health", study programme developer.
- 2020 - Postdoctoral project of the University of Latvia "Ergonomic load indicators in modern technological work environment and possibilities of their improvement in socio-technical system "Man-machine-environment"", Project contract number: 1.1.1.2/VIAA/3/19/546
- 2017 - 2021 COST project CA16206 “Empowering the next generation of social enterprise scholars” (2017-2021).
- 2013 - 2015 Riga Stradiņš University project "Development of modern diagnostic and research methods for risks caused by nanoparticles and ergonomic factors in workplaces", Agreement No: 2013/0050/1DP/1.1.1.2.0/13/APIA/VIAA/025 – researcher.
- 2010 - 2013 LSC project No. 09.1615 "Research on the quality of the education system, lifelong learning, inclusive and media pedagogy in the Latvian and international context" - contractor.
- 2009 - 2013 Executor of the National Research Programme "Development of Innovative Multifunctional Materials, Signal Processing and Informatics Technologies for Competitive Science Intensive Products" LU sub-project No.3 "Nanostructured self-assembled polymer composites containing modifiers and their corresponding technologies for applications in intelligent materials and devices".
- 2012 - 2013 Executor of the National Research Programme "Development of Innovative Multifunctional Materials, Signal Processing and Informatics Technologies for Competitive Science-intensive Products" LU sub-project No.6 "Graphene, modified graphene and graphene-based composite materials for promising applications in coatings, nano-devices and sensors, energy conversion".

Projects of Dr.oec., prof. Biruta Sloka:

- Baltic Research Programme (Norway and EEA funded) project “VOCATIONAL EDUCATION AND WORKPLACE TRAINING ENHANCING SOCIAL INCLUSION OF AT-RISK YOUNG PEOPLE”, acronym: EmpowerVET with project identification No S-BMT-21-2, contract No.. LT-08-2-LMT-K-01-010, LU registration No. NORV2020/45 and LU funding code No. N23-NORV45-ZF-N-070 (direct costs) and N23-NORV45N-ZF-N-070 (indirect costs) head pof the project in Latvia (leading partner – Vytautas Magnus University (Lithuania), other partners - University of Stavanger (Norway) and Tallin University (Estonia). Project implementation 01.01.2021-21.12.2023 Partnership Agreement with the Lead Partner for the project " Professional education and work-based learning as an option for social inclusion of young people at risk" No. S-BMT-21-2 (LT-08-2-LMT-K-01-010).
- EU TEMPUS project "Promoting the Knowledge Triangle in Belarus, Ukraine and Moldova", AD 2986 – 214, 2014. – 2017.g., (manager);
- Within the European Social Fund project "Capacity Building of Iecava Municipality" "Iecava Municipality Needs Assessment in the Implementation of EU and Other Foreign Financial Assistance Co-financed Projects and Measures" No.1DP/1.5.2.2.3/11/APIA/SIF/093/101, 2013;
- National Research Programme "Latvian Heritage and Future Challenges for National

Sustainability" project "Challenges and Solutions for Latvian State and Society in an International Context (INTERFRAME-LV)", VPP–IZM-2018/1-0005, 2018– 2021, (lead researcher);

- Research of the University of Latvia and the Latvian Association of Digital Experts "Determining the best online store in Latvia", Participation in iMarketings.lv, 2018–2019.;
- NRP Programme "Economic Transformation, Smart Growth, Governance and Legal Framework for Sustainable Development of the State and Society - New Approaches for Building a Sustainable Knowledge Society (EKOSOC_LV) Project "Investigating the Competitiveness of Latvian Enterprises in Foreign Markets and Proposals for Strengthening it", sub-project "Investigation of International Marketing Opportunities for Strengthening Competitiveness", LU/2014–Y-3-29933, 2014– 2018, (head of the project);
- NRP Programme "Economic transformation, smart growth, governance and legal framework for sustainable national and societal development - new approaches for a sustainable knowledge society (ECOSOC_EN). Project "Trajectories of social and political transformations in post-crisis Latvia", LU/2014-Y-3-29934, 2014 – 2018, (head of the sub-project);
- LU project ZD2016/ZP–402 "Harmonisation and preparation for publication of statistical terms in Latvian", (supervisor);
- National Research Programme No.1 "Innovative technologies for extraction and use of energy resources and provision of low-carbon renewable energy, support measures to limit environmental and climate degradation" Project No.4 "Research and prototyping of methods for extraction, storage and energy release of hydrogen for applications in the national economy", 2010 - 2015, (executor);
- LU AAP 2014/32 "Analysis of the possibilities of using consumer attitude assessment methods in new product offerings", 2014 (supervisor);
- Latvia-Lithuania Cross-border Cooperation Programme 2007-2013 project "Improvement of vocational education according to labour market requirements"/VocEdu, Nr.LLIV-265, "Study on the relevance of vocational education to labour market needs, development of a cooperation model and organisation of training for practice supervisors", No. KPR 2013/7/LLIV-265.

Projects of Dr. med. Romualds Ražuks:

- The BSPC Working Group on Innovation in Social- and Healthcare. Final Report. August 2015. Landtag Mecklenburg-Vorpommern, Schwerin, 2015.

Projects of Dr.philol. Indra Karapetjana:

- 2022-2024 National Research Programme Diversity of the Latvian Language in Time and Space, VPP-LETONIKA-2021/4-0003 LU reg. No. VPP2021/24. Source of funding: University of Latvia, Y3-VPP24-ZF-N-915. Total project budget: 479 444,00 EUR
- 2021-06.2021. Erasmus+ project Promoting Easy-to-Read Language for Social Inclusion, lead researcher. Source of funding: LU, M-21048-ST-N-251. Total project budget:: 150 974,00 EUR
- 2018.-12.2020. National Research Programme the Latvian Language, No. VPP-IZM-2018/2-002, LU reg. No. VPP2018/12018, lead researcher. Source of funding: LU, Y3-VPP1-ZF-N-915. Total project budget:: 605,79 EUR
- 2019-03.2020. LU Study Field Education, Pedagogy and Sport Motivated, Modern and Competitive Academic Staff, ESF, leading expert. Source of funding: LU, S278-ESS284-ST-N-011. Total project budget: 1 050 774,89 EUR
- 2020-2023 Erasmus+ Strategic Partnership Project: Mitigate the Impact of Fourth Industrial

Revolution on Indian Society: EDUcation REFORM for Future and In-Service School Teachers, 609699-EPP-1-2019-1-IN-EPPKA2-CBHE-JP, Lead Expert. Source of funding: Latvijas Universitāte, PIz-21041-ST-N-251. Total project budget: 28 868,30 EUR

- 2016.-12.2019. Erasmus+ Strategic Partnership Project: CLIL@India ERASMUS+KA2 Cooperation for innovation and the exchange of good practices – Capacity Building for Higher Education project Developing Content and Language Integrated Learning – Resource and Training Centre for A multilingual India CLIL@India No. 573884-EPP-1-2016-1IN-EPPKA2-CBHE, lead researcher. Source of funding: LU, PIz-20336-ST-N-251 Total project budget:: 13 205,39 EUR
- 2016-11.2019 Erasmus+ Cooperation to promote innovation and exchange of good practice, / Erasmus+Key Action 2: Strategic Partnerships Transversal Skills in Dentistry: Content and Language Integrated Learning, No – 2015-1-LV01-KA203-013401, lead expert. Source of funding: LU, M-20146-ST-N-251. Total project budget: 71 992,00 EUR
- 2019-01.2020 Establishment of internationally competitive study programmes promoting the development of the Latvian economy at the University of Latvia, ESF, leading expert Source of funding: LU, S296-ESS310-ZF-N-675 Total project budget: 1 486 297,75 EUR

Projects of Dr.geog. Juris Burlakovs:

- South Baltic Interreg “Reviving Baltic Resilience” from 07/2017. Source of funding: Swedish government. Total project budget: 1 483 941,18 EUR
- Interactive Water Management Interreg “IWAMA” from 05/2018. Source of funding: Swedish government. Total project budget: 4 000 000,00 EUR
- ERAF Project "Development of a variable fuel gasification process for solid waste processing". Source of funding: ERAF. Total project budget: n/a
- ESF Project "Interdisciplinary group of young scientists for the assessment and restoration of the quality and use potential of Latvian soils". Source of funding: LU. Total project budget: n/a
- 07-8/2015 LGIA Project for the establishment of the National Geomagnetic Measurement Station (commissioned by the Ministry of Defence, LGIA; developer Geo IT Ltd, expert J. Burlakovs). Source of funding: Geo IT SiA. Total project budget: 5000,00 Eur
- Urban and Glass Mining Perspectives – Cooperation project with Linnaeus Universitetet, Geo IT (expert is manager of the company) as national MVU partner (funded by Swedish Institute), started in March 2015. Source of funding: Linnaeus Universitetet. Total project budget: n/a
- Closing the Life Cycles of Landfills (Kudjape landfill in Estonia / Katrineholm in Sweden) – cooperation project with Linnaeus Universitetet, 2013-2015. Source of funding: Swedish Institute. Total project budget: 50000,00 Eur
- Expert, job code 2422 10, for the project "Raising public awareness and knowledge on climate change caused by anthropogenic processes - waste and wastewater management", contract no. No 2/EEZLV02/14/GS/046, Riga, Latvia, Norway and other countries as required for the implementation of the project. Source of funding: NGO Zaļā Brīvība. Total project budget: n/a.
- European Economic Area Financial Mechanism 2009-2014 "National Climate Policy" grant scheme project "Climate Change Education for All". From 2014/9 National Research Programme developments Nat Res and Res Prod. Source of funding: National research programme. Total project budget: n/a.

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 doctoral study programme is implemented with the participation of faculty members from several faculties of the University of Latvia, depending on the area of specialisation of the research. There is active cooperation by inviting experts from other faculties of the University and from outside the University (e.g. from Estonian University of Life Sciences, Tallinn University of Technology), participating in lecturing and guest lectures, consulting on the orientation of scientific research works, etc. Several PhD students are also involved in lecturing in Bachelor and Master programmes according to their knowledge, experience and scientific competence.

The programme (at the time of submission of the self-assessment report) has a total of 18 faculty members - 17 with PhD degrees in various fields related to the programme, and 1 with a Master's degree; 17 lecturers in elected academic positions (from Assistant Professor to Professor), including 11 at the University of Latvia, 5 at other universities in Latvia, Estonia and Spain, and 1 in a non-elected academic position. The programme has recruited and engaged faculty members from the beginning of the programme and during its design, content and format development, including to ensure targeted networking between faculty members within the context of the programme, with a particular focus on linking courses of study and the two main modules of the programme - science and content specialisation. This was achieved through regular internal working meetings, discussions, exchanges, the development of course descriptions and the joint mapping of learning outcomes - including course outcomes and programme outcomes. Cooperation between lecturers continues to take place in the format of informal meetings and daily cooperation, as well as in an institutionalised way within the study programme and its study plan, for example, in doctoral colloquia, the Doctoral Council of the field, to a large extent also in the preparation of the self-evaluation report, exchange of experience in supervising doctoral theses, consultations, etc. The programme management pays particular attention to potential improvements of the programme after the first year of the programme validation, including gathering experience and feedback from students and lecturers. At the end of the first year of study and towards the second year of study, the programme management will organise seminars for both students and lecturers to share experiences and identify and implement opportunities for improvement, including strengthening the interlinkages between courses and modules of the programme, e.g. after the first year of study and towards the second year of study. In the course of the first semester and during the second semester a potential opportunity has been identified to further strengthen the link between two science module courses - Research Methodology and Qualitative Research Methods - in order to provide more targeted support for students' work in the 1st year Research Thesis 1 - Theory Analysis.

The evaluation of faculty cooperation should also highlight faculty cooperation between study programmes. Faculty members and PhD students of the study programme "Economics and Entrepreneurship" of the Faculty of Business, Management and Economics of the University of Latvia are involved in lecturing of certain study courses. Doctoral students studying here need teaching experience, which they can provide in the professional master's study programme " Work Environment Protection and Expertise" by lecturing on selected topics related to their professional field of activity or in the bachelor's study programme "Occupational Health and Work Protection". Practical training for students of bachelor and master study programmes should be emphasised, in

the organisation of which doctoral students are actively involved, offering to conduct individual classes on specific topics, organising visits to companies (e.g., doctoral students organise practical training at KNAUF Latvija as part of their research and lectures; practical training for students from Hartico (https://hartico.ee/lv/); practical training at Latvijas Dzelzceļš; reflecting practical experience from Rīgas Satiksme).

The mutual cooperation of the doctoral teaching staff is also positively promoted by joint external cooperation - the teaching staff has active cooperation with the Latvian Ergonomics Society, the Business Efficiency Association, the Chamber of Commerce and Industry, as well as at the international level with the International Ergonomics Association, the European Federation of Ergonomics Societies and the Certified European Ergonomists Registration Centre. Cooperation is also being developed with the Latvian Association of Young Scientists.

In terms of the student-teaching staff ratio within the study programme (at the time of submission of the self-assessment report), the programme has attracted 18 academics during its development and the first year of implementation, including 11 assistant professors, associate professors and professors elected to academic positions at the University of Latvia and 7 lecturers from other universities in Latvia, Estonia and Spain, as well as guest lecturers, experts in the field in the working environment. In the 1st year of the programme, 11 lecturers are involved in the implementation of the programme, including 7 lecturers elected to academic positions at the University of Latvia, assistant professors, associate professors and professors, and 4 guest lecturers. In terms of the number of students, 7 PhD students were enrolled in the first year of the programme, while the programme as a whole expects to enrol 10-15 PhD students per year over the next few years. The student-teaching staff ratio of the programme at the time of the submission of the self-assessment report and in the future is therefore as follows:

- Ratio of students to lecturers in the programme as a whole (excluding research advisors):
    - In the first year of implementation (2022/2023): 7/18 = ~ 0.4
    - Planned in the second year of the programme (2023/2024): (7+10)/18 = ~ 0.95
    - Planned in the third year of implementation (2024/2025): (7+10+15)/18 = ~ 1.8
    - Planned in the coming years on average: (10+15+12)/18 = ~ 2

- Ratio of students to lecturers in the programme in the 1st year (excluding research advisors):
    - Against elected lecturers at the LU: 7/7 = 1. In the coming years ~12~15/7 = ~ 1.7~2.14
    - Against the total number of lecturers: 7/11 = ~0.64. In the coming years ~12~15/11 = ~ 1.1~1.4

At the same time, the programme, faculty, and university management take into account that the diversity of lecturers contributes to the competitiveness, attractiveness and impact of the programme. Therefore in the coming years the programme plans to involve more lecturers and guest lecturers, including practitioners from the labour market and from abroad, at the same time ensuring the core of lecturers and thesis supervisors during the 3 years of the programme for ~35 students ~15 part-time lecturers and thesis supervisors (~35 / 15 = ~ 2.3).

The international contribution to the implementation of the study programme is provided by the concluded work contracts with the Estonian University of Life Sciences teaching staff, who are actively involved in the implementation of the study programme, e.g. prof. Eda Merisalu, assistant prof. Mart Reinvee. In 2023, it is planned to conclude a 4-month employment contract (from 1 July 2023 to 31 October 2023) with Professor Andris Freivalds from Penn State University, USA.

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	ANNEX_15_4_DOCTOR'S DIPLOMA UNIVERSITY OF LATVIA.docx	15_4_pielikums_Par studiju programmas apgūšanu izsniedzamā diploma paraugs_LV.docx
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_16_4_Statistical data about students in the study program .docx	16_4_pielikums_Statistika par studējošajiem pārskata periodā.docx
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)	ANNEX_19_Correspondence of the study programme to the normative regulation.docx	19_pielikums_Studiju programmas atbilstība atbilstošās nozares specifiskajam normatīvajam regulējumam_LV.docx
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	ANNEX_20_4_Mapping of the study courses of the doctoral study program .docx	20_4_Pielikums_Studiju kursu kartējums studiju programmas studiju rezultātu sasniegšanai .docx
The curriculum of the study programme (for each type and form of the implementation of the study programme)	ANNEX_21_4_Full-time study plan of the study program .docx	21_4_Pielikums_Studiju programmas plāns_LV.docx
Descriptions of the study courses/ modules	ANNEX_22_4_Study course list.pdf	22_4_PIELIKUMS_Studiju kursu apraksti_LV_F.pdf
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)	ANNEX_25_4_HEAD OF STUDY FIELD DECLARATION.edoc	25_4_pielikums_Apliecinājums, ka doktora studiju programmas akadēmiskā personāla sastāvā ir ne mazāk kā pieci doktori_LV.edoc
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)	ANNEX_27_4_HEAD OF STUDY FIELD DECLARATION.pdf	27_4_pielikums_AL_55_pants_Apliecinajums_par_akadem_progr_atbilstibu_LV.edoc