APPLICATION

Study field "Veterinary Medicine" for assessment

Study field	*Veterinary Medicine*
Title of the higher education institution	*Latvijas Lauksaimniecības universitāte*
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Self-evaluation report

Study field "Veterinary Medicine"

Latvia University of Life Sciences and Technologies

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I - Information on the Higher Education Institution/College

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

Latvia University of Life Sciences and Technologies (LLU) is the fourth largest university in Latvia (established in 1936 as an independent higher education institution) which implements studies and research for various industries of the national economy and which has developed relevant educational and research competence and expertise in:

- the following unique fields: agriculture, forestry, veterinary medicine, food technology and landscape architecture;
- the following universal fields: information technology, economics and social sciences, agricultural engineering, environmental sciences, civil engineering and pedagogy.

LLU:

Vision – Latvia University of Life Sciences and Technologies is one of the leading science and technology universities of the Baltic Sea region, with a specialisation in the sustainable use of natural resources to improve the life quality of society.

Mission – to build internationally competitive intellectual potential based on excellence in research, application of research results in the national economy, high quality of studies and effective university management.

LLU l**ong-term goals**:

1. Excellence in research that promotes technology and innovation and is integrated into the study process.
2. High-quality studies that provide the development of internationally competitive specialists.
3. Effective university management that ensures the targeted and efficient use of resources for high-quality studies and excellence-focused research.

LLU medium-term objectives are subordinated to the vision, the mission and the long-term goals and are as follows:

1. Excellence in research.
2. Application of research results in the national economy (research results are understood to mean the university's knowledge, technology and innovation accumulated and generated).
3. Integration of studies and research.
4. Internationalisation of studies and lifelong education.
5. High quality and competitive studies that meet the current demand.
6. Diversified supply of lifelong education that meets the current demand.
7. Effective university management at all the levels.

The LLU Development Strategy for 2015-2022 (https://www.llu.lv/index.php/en/mission-and-vision) prescribes three action programmes with relevant targets to achieve the long-term goals:

1. Research Programme;
2. Education Programme;
3. Management Programme.

LLU is comprised of the following eight faculties:

1. **LF** – the Faculty of Agriculture (established in 1863);
2. **VMF** – the Faculty of Veterinary Medicine (established in 1919);
3. **MF** – the Forest Faculty (established in 1920);
4. **TF** – the Faculty of Engineering (established in 1944);
5. **VBF** – the Faculty of Environment and Civil Engineering (established in 1947);
6. **PTF** – the Faculty of Food Technology (established in 1948);
7. **ESAF** – the Faculty of Economics and Social Development (established in 1968 as the Faculty of Agricultural Economics; in 2013, the Faculty of Economics merged with the Faculty of Social Sciences);
8. **ITF** – the Faculty of Information Technologies **(**established in 2001).

Totally, the Faculties of LLU implement 61 study programmes within **14** study directions (as of October 1, 2020).

Number of students and programmes in LLU study directions

B – bachelor programmes; M – master programmes; D – doctoral programmes

No.	**Study direction**	**Number of programmes**				**Number of students (**01/10/2020**)**	**Faculties**
		Total	**B**	**M**	**D**		
1	Agriculture, Forestry, Fishery, and Food Hygiene	**12**	6	3	3	1,140	LF, MF, VMF
2	Architecture and civil engineering	**9**	5	2	2	434	VBF
3	Production and processing	**8**	4	2	2	443	PTF, MF, TF
4	Information technology, computer engineering, electronics, telecommunications, computer management and computer science	**4**	2	1	1	286	ITF
5	Environmental protection	**3**	1	1	1	98	VBF
6	Health care – a joint programme with LU and RSU	**1**		1		22	PTF
7	Mechanics and metal working, heat power engineering, heat engineering and mechanical engineering	**6**	4	1	1	272	TF
8	Power industry, electrical engineering and electrical technologies	**1**	1			85	TF

No.	Study direction	Number of programmes				Number of students (01/10/2020)	Faculties
		Total	**B**	**M**	**D**		
9	Sociology, Political Science, and Anthropology	**2**	1	1		68	ESAF
10	Economics	**3**	1	1	1	389	ESAF
11	Management, administration and real estate management	**5**	2	3		342	ESAF
12	Hotel and restaurant service, tourism and recreation organisation	**1**	1			141	PTF
13	Internal security and civil defence	**1**		1		53	MF
14	Education, pedagogy and sports – **the direction to be closed in 2023**	**5**	2	2	1	118	TF
	Total	**61**	**30**	**17**	**12**	**3,891**	

LLU personnel, job positions and age group statistics information are in the table.

LLU personnel, job position and age group statistics (as of October 1, 2020)

	Total	incl. women
University personnel	**957**	**652**
incl. academic staff members who have been elected at LLU	305	190
professors	57	33
associate professors	53	36
assistant professors	64	47
lecturers	40	30
assistants	0	0
leading researchers and researchers	91	44
Academic staff members – professors, associate professors, assistant professors, lecturers or assistants – who are also elected as leading researchers and researchers	156	105

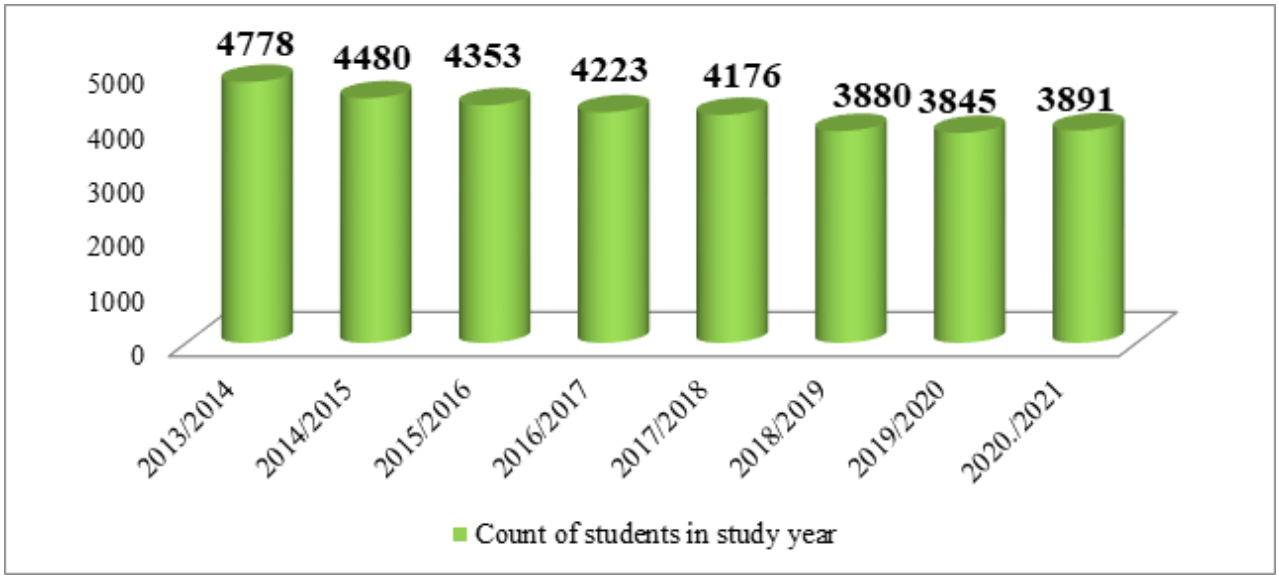
Other personnel	**652**	**462**
Academic staff who have not been elected at LLU (visiting professors, visiting assistant professors, visiting lecturers)	**253**	**153**
of which foreign visiting professors, visiting assistant professors, visiting lecturers	**21**	**4**
Distribution of *academic staff members* by age:		
under 25 years	0	0
25–29 years	4	3
30–34 years	21	12
35–39 years	49	24
40–44 years	39	28
45–49 years	46	32
50–54 years	30	24
55–59 years	31	23
60–64 years	41	26
65 years and over	44	18

227 members of the total academic staff have a scientific degree (74.43%).

LLU promotes and supports the engagement of young teaching staff in academic work. Of the current academic staff, 52% are less than 50 years old, 33% are from 50 to 65 years old and only 14% are over 65 years old.

Changes in the number of students at LLU in the period 2013-2020 (October 1 of each year)

In the period from the academic year 2013/2014 to the academic year 2020/2021, the total number of students accounted for more than 4,000. The decrease in the number of students over the six-year period reflects overall negative demographic trends concerning natural increase of population and migration. The total number of students at LLU decreased by 18% over the six-year period, yet a positive fact is that the number of students tends to remain stable in last years. Overall, the total number of students was affected by the processes occurring in the country: 1) the number of individuals who finished the secondary school decreased by 20% in the reference period; 2) the number of individuals who finished their secondary school and continued their education at university was very volatile from year to year: a 5% decrease in 2015 and 2017 and a 1-2% increase in 2014 and 2018. Currently (in 2020), the number of students has levelled off, and there has even been a slight increase in the total number of students studying at LLU compared with the previous year.



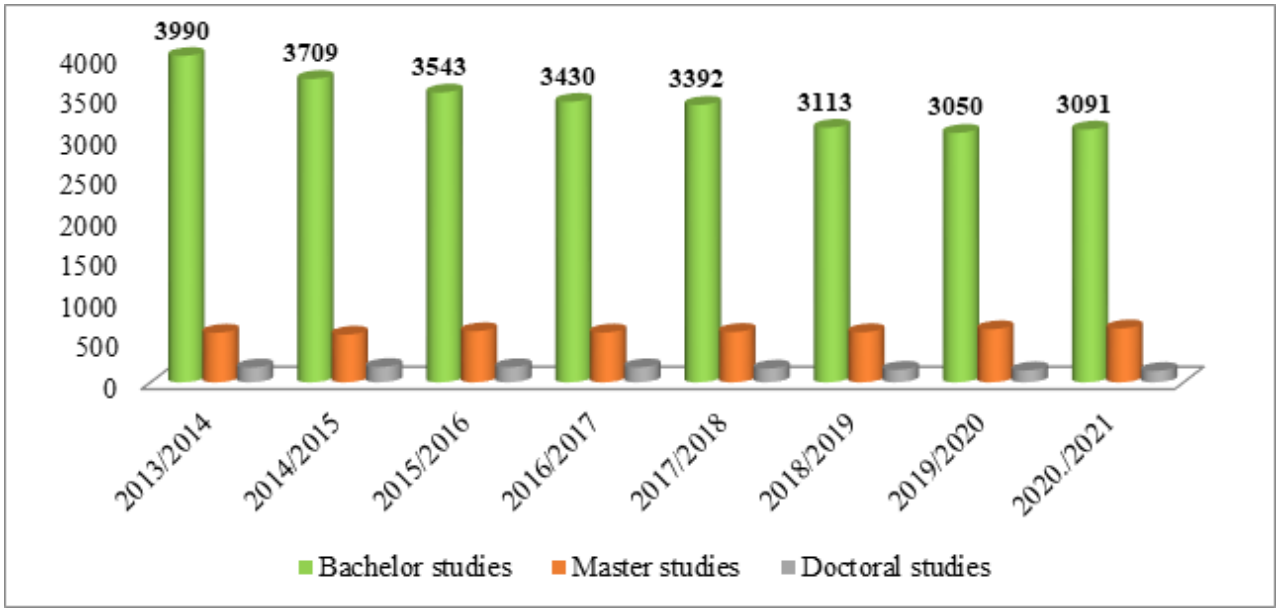
After the university had succeeded in tackling with the external factors affecting the number of students, a number of reasons for the decrease in the number of students were established; the reasons were identified from the analysis of the matriculation of students.

The major reasons are as follows:

1. There was a considerable increase in the amount of students who discontinued their studies during the first semesters owing to the wrong study programme or study direction chosen, their jobs or private life problems;
2. Some students could not continue their studies because of financial problems or due to the schedule requirements (especially working part-time students), since they could not combine studies with their working hours;
3. Master's degree students were unable to combine studies with their jobs;
4. Interest in doctoral studies tended to decrease because financial support for doctoral students was insufficient (a monthly scholarship determined by the state was EUR 113.83), and the availability of funding for research was limited.

The distribution of the number of students by level of studies at LLU in the reference period was as follows:

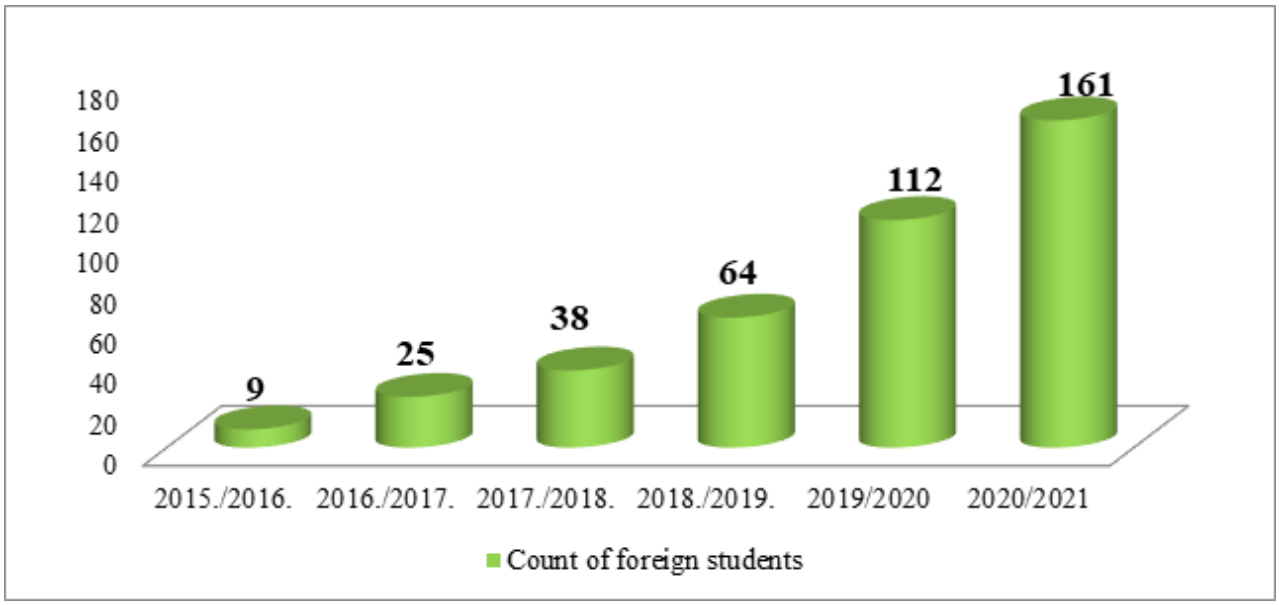
1. Bachelor's degree studies – 79-84%;
2. Master's degree studies – 13-17%;
3. Doctoral studies – 4%.



The analysis of changes in the number of students distributed by level of studies allows concluding that the numbers of undergraduate and doctoral students were the most volatile (a negative trend). The decrease in the number of undergraduate students could be rationally explained as follows: over the six-year period, several study programmes were consolidated; the regional affiliates of LLU were closed; the decrease in numbers of part-time students was observed in particular. The decrease in the number of doctoral students could be explained by the insufficient amount of funding allocated to science and research as well as the fragmented nature of that funding.

Main activities implemented by LLU to increase its number of students:

1. In the academic year 2015/2016, LLU began admitting international students for studying in English. Thus 161 international students studied at LLU in 11 study programmes (at all the levels of studies) in the academic year 2020/2021.



2. Students are given an opportunity to acquire a bachelor's degree of social sciences in sociology in the form of e-studies.
3. As regards the conventional study process, teaching staff members use the Moodle online system intensively as a support tool for e-studies (learning materials, multiple choice tests, tests, homework etc.);
4. Infrastructure for studies and research has been improved and modernised.

5. Opportunities to receive scholarships funded by patrons tend to increase.
6. LLU provides doctoral students with internal research grants.

Research activities and motivation measures for the academic staff are defined in the LLU Development Strategy, the relevant targets set have to be achieved by the Faculties, administrative centres and scientific institutes and laboratories. Each organisational unit of LLU approves these plans for an annual period. The decision-making bodies of the organisational units have to approve the targets set and the procedure to achieve the targets. Each organisational unit collegially reports on the progress to the LLU Rectorate, and the details of the implementation of the plans are published on the LLU intranet: https://mans.llu.lv/lv, they and are available to the academic staff and students.

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

The following key (collegial) institutions are involved in making **strategic decisions** at LLU:

The **Council** is a supreme collegial representation, management and decision-making body for academic and scientific matters authorised by the personnel of LLU.

The **Council**:

- approves and amends the Constitution of LLU;
- elects and dismisses the members of the Senate of LLU;
- elects and dismisses the rector of LLU;
- elects the Academic Arbitration Court of LLU and dismisses its members;
- hears reports by the Senate, the Rector and the Academic Arbitration Court;
- approves and amends regulations on electing the Council, electing and dismissing the Rector and the statutes of the Senate and the Academic Arbitration Court;
- discusses and makes decisions on conceptual matters on the performance and development of LLU.

The Council is composed of 240 members who are elected by the organisational units of LLU by secret ballot for three-year terms in the following composition:

- 160 academic staff (67%);
- 50 students (21%);
- 30 other personnel (13%).

The Council functions in accordance with its Statute https://www.llu.lv/lv/konvents (only in Latvian).

The **Senate** is a collegial management and decision-making body of the personnel of LLU, which approves the rules and regulations that govern all the spheres of LLU activity, with the exception of those that fall within the remit of the Council in accordance with the Constitution of LLU.

The Senate is approved by the Council for a period of three years. The Senate consists of 60 senators, of which:

- 41 are representatives of academic staff who represent all the Faculties (68%);

- one representative of other personnel (2%);
- the Rector of LLU, the Vice-Rectors for studies and science and the chair of the Council as representatives of academic personnel, the director and the Chancellor of LLU as representatives of other personnel (10%);
- 12 representatives of students who have been nominated by the Student Self-government (20%).

The Senate functions in accordance with its Statute https://www.llu.lv/lv/senats (only in Latvian).

Regulations, decisions and procedures in relation to the matters pertaining to the basic activity of LLU are also passed, within the scope of competence, by:

1. Rector;
2. Vice-Rectors for studies and science;
3. Chancellor;
4. Director;
5. Deans of the Faculties

Annex 1 – List of main internal documents of LLU.

Annex 2 – LLU Management Structure.

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

Quality management system at the University.

The quality management of study processes is part of the overall quality management system of LLU. Since 2016, the quality management system of LLU has been based on the international standards for excellence (see Investors in Excellence Standard, www.investorsinexcellence.com).

The quality management system of LLU is externally audited every two years (audits may be done by the organisations recognised by the Investors in Excellence organisation, which either grant or do not grant an Investors in Excellence certificate to the organisation audited). Such a certificate was granted to LLU both in 2016 (the first audit) and in 2018 (the repeated audit).

The quality management system of LLU is part of the overall LLU Development Strategy and covers a broad spectrum of matters. A short general description of the LLU Quality Management System and the Quality Assurance Plan is available at https://www.llu.lv/index.php/en/mission-and-vision

Quality management system in the context of studies

LLU has developed a detailed joint scheme of study processes that includes 90 major study processes, their sequence and interaction. Each of the 90 processes is described and arranged sequentially. The description contains the following parts: activities; responsible organisational units and employees; reference to the legislative or regulatory framework governing the activities. The detailed joint scheme of study processes provides a common approach to study processes across all the organisational units.

The descriptions of quality of studies at LLU are restricted access documents and are intended for internal use at LLU as well as are part of the management and strategic documents of LLU. The detailed information on the internal quality management system and its effectiveness is contained in Section 2.2 of the self-assessment report where the quality management system is described, assessed and defined in the context of a particular study direction.

The characteristics of stakeholders and their role in the development and improvement of quality assurance system.

The quality management system of LLU covers all the spheres of LLU activity. The academic staff and other personnel of LLU are involved in the quality management system. The coordinating body of the quality management system is the Administrative Centre of LLU, which is subordinate to the Rector.

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

1.	The higher education institution/ college has established a policy and procedures for assuring the quality of higher education.	Complies Investor in Excellence certificate issued in 2016 Detailed information is provided in Section 1.3 and 2.1 of the report
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.	Complies New study programmes are developed in accordance with the Regulation on Study programme Development, Approval and Amendment at LLU (No. 10-5 as of 13 March 2019) approved by the Senate. The Regulation stipulates that: 1. A programme shall be developed by a Faculty, discussed by the Methodological Commission of the Faculty and approved by the Board of the Faculty; 2. The programme developed shall be discussed by the Board of Studies and recommended for approval by the Senate; 3. The Senate shall approve the programme and a director for the programme; 4. Relevant documents shall be submitted to the Academic Information Centre for being licensed; 5. New students shall be admitted to LLU and enrolled in the programme after the licence has been granted. Every year, annual reports are drawn up for all study programmes; the reports are approved by the Senate and published on the LLU website https://www.llu.lv/lv/studiju-virzienu-parskati-un-pasnovertejuma-zinojumi (only in Latvian)

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.	Complies
		The students' learning outcome assessment system is described in: • Regulation of Studies (bachelor's and master's degree studies). • Regulation of Doctoral Studies. The requirements for assessing students' learning outcomes for each particular course are given in the descriptions of course study programmes available in Latvian and English in the LLU IS course register at https://lais.llu.lv/pls/pub/kursi.startup?l=1
4.	Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.	Complies
		LLU has developed procedures and regulations (approved by the Senate) to guarantee the qualifications and work quality of academic staff: 1. The LLU Regulations on Academic Positions (File in the attachments section in the folder "LLU Documents in English"). 2. The Regulation regarding the Calculation of Academic Workload (File in the attachments section in the folder "LLU Documents in English"). 3. The Motivation System for LLU Academic Staff (File in the attachments section in the folder "LLU Documents in English"). 4. Classes for students are scheduled in accordance with the procedures approved by the Rector: classes are scheduled in a centralised way for full-time studies, while for part-time studies it is done by each Faculty. The schedules are publicly available two weeks before the beginning of a semester (for part-time studies – before the beginning of the examination period) https://www.llu.lv/lv/nodarbibu-grafiki (only in Latvian)

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.	Complies LLU uses an information system that aggregates information about the entire study process of each student (decisions regarding the student, grades earned, payments made). Every semester, a survey of students is conducted to find out students' opinion regarding the courses taken, satisfaction with the way the courses are organised, the content of the courses, the teaching staff delivering the courses (an electronic questionnaire). The survey results are available to each teaching staff member, directors of study programmes, department/institute directors, deans of the Faculties and the Vice-Rector for studies. For financial planning and accounting, LLU employs the accounting system Horizont that is a single system connected with the Ministry of Agriculture. The achievement of the goals and targets set by the LLU Development Strategy is reported each year at different levels: Faculties – during the dean's office meetings; Administrative units – at the Board of Studies; The Vice-Rectors, the Chancellor and the LLU Director – during the Rectorate meetings; The Rector – during the Council meetings.
6.	The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their quality assurance systems.	Complies Reports of the study directions are produced every year, reviewed by the Board of Studies and approved by the Senate. Once approved, the reports are made public on the LLU website - hhttps://www.llu.lv/lv/studiju-virzienu-parskati-un-pasnovertejuma-zinojumi (Only in Latvian)

II - Description of the Study Direction (1. Management of the Study Direction)

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

The mission of the Faculty of Veterinary Medicine is to provide contemporary, ethical and science-based veterinary education, to perform scientific and consulting work in the field of veterinary medicine in the most relevant directions.

Veterinary medicine is one of the fastest growing sectors in Europe, affected not only by population

growth and the associated need for more safe food production, but also by the expansion of the responsibilities and competencies of veterinary professionals.

According to the data of the European Federation of Veterinarians, there are approximately 243,000 veterinarians in Europe, but in Latvia approximately 1,100 and the need for quality education in this field is very high, taking into account both the average age of Latvian veterinarians and the need for specialization. Studies in veterinary medicine in Latvia are offered only at the Latvia University of Agriculture, a similar study program is also offered by the Estonian University of Life Sciences and the Lithuanian University of Health Sciences, but they are more oriented to the local market. The study program "Veterinary Medicine" has been recognized by EAEVE (European Association of Establishments for Veterinary Education) since 2019 (repeated visit report in the annex), which confirms compliance with the requirements of Directive 2005/36/EC.

Due to the fact that in the last 50 years veterinary medicine from Lnancing, forestry, fisheries, eterinarmedicine and food hygiene, the fields included in the study field have developed into an independent interdisciplinary sector with close links with medicine, agriculture, food technology, etc. sectors need to create a narrower study direction in order to implement changes and adaptations to innovations and discoveries in the field of veterinary medicine could be made easier by providing highly qualified professionals for the economy. Nevertheless, the veterinary medicine sector is also closely linked to agriculture, forestry, fishery and food hygiene, as it essentially serves as a link concerned animal welfare, animal production, animal health, and food safety, and partially integrates the guidelines of the One Health Concept.

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

In the Development Strategy of Latvia University of Agriculture for 2015-2020 (work is underway on a new LLU strategy), the science sub-sectors, in accordance with the focus of the priority research directions, the interrelation of objectives and thematic interests, are grouped into three main blocks of science sectors:

1. Life sciences block.
2. Engineering block.
3. Block of social sciences.

The life sciences block includes Agricultural Sciences and Veterinary Sciences, as well as related science sub-fields in Natural Sciences and Medical and Health Sciences. The main research activities are related to agriculture, forestry and veterinary medicine.

Vision of the LLU is to be one of the leading universities of science and technologies in the Baltic Sea region, specializing in the sustainable use of natural resources aimed at the enhancement of quality of life for society while the LLU mission is to develop competitive intellectual capital on the basis of excellence in research, application of research findings, and high quality of education and effective management of the university.

The aim of the study direction Agriculture, Forestry, Fisheries, Veterinary Medicine and Food Hygiene is to ensure the possibility of obtaining higher academic and vocational education in the fields of agriculture, veterinary medicine, forest, as well as to develop science and maintain, develop the intellectual potential and culture of Latvia. Whereas the mission of the VMF is to provide modern, science based, ethical veterinary medicine education; to carry out scientific and consultative work on the actual professional topics.

1.3. SWOT analysis of the study direction with regard to the set aims by providing explanations on how the higher education institution/ college expects to eliminate/ improve weaknesses, prevent threats, and avail themselves of the given opportunities, etc. The assessment of the plan for the development of the study direction for the next six years and the procedure of the elaboration thereof. In case there is no development plan elaborated or the aims/ objectives are set for a shorter period of time, information on the elaboration of the plan for the development of the study direction for the next assessment period shall be provided.

In the direction of veterinary medicine studies a separate development plan has not been developed mainly due to the limitations of COVID, but based on the experience of other veterinary faculties, the development plan is mainly based on EAEVE guidelines and SOPs (Standard Operating Procedure). In 2021./2022. study year it is planned to start work on the development of the faculty strategy and changes in the plan and content of the second level professional program of Veterinary Medicine, which we plan to implement by year 2024.

Comments

Strengths	1. Unique study program in Latvia; 2. EAEVE recognized study program (internationally recognized); 3. Close professional cooperation with the industry; 4. There is a demand for specialists in the labor market both now and in the future; 5. Adaptive approach to the implementation and improvement of study programs; 6. Ability of the staff to ensure the course of the study program in English and Latvian language flows; 7. Versatile and in-depth integration of practical training in the study process; 8. Appropriate infrastructures for first- day skills training, especially in the field of clinical sciences; 9. Central administrative and economic structures; 10. International cooperation; 11. Enthusiastic staff; 12. Involvement in working groups of different levels of government; 13. Various professional development and professional development courses provided by the university; 14. High scientific potential	

Weaknesses	1. Insufficient material and technical base, especially in preclinical, public health and environmental hygiene areas; 2. Insufficient qualification and number of support staff; 3. Non-competitive salary of technical, academic and scientific staff; 4. It is difficult to ensure staff turnover, succession and attraction of highly qualified specialists; 5. Insufficient number of state-funded places in the doctoral study program; 6. Excessive academic and administrative workload; 7. Centralization of the budget; 8. Insufficient representation in university-level decision- making bodies; 9. Low scientific return of staff.	1. To carry out various local and international financial projects for the improvement of infrastructure, as well as to make money from self-earned funds for the improvement of infrastructure; 2. To associate auxiliary staff with the education or analogue of a veterinary assistant; 3. Use of other sources to replenish the salary fund; 4. The country needs changes in the total remuneration policy of higher education; 5. To increase the number of state- funded places in the doctoral study program “Veterinary Medicine”; 6. Staff policy calculation policies need to be changed; 7. Decentralization of the budget; 8. Same number of votes to all faculties of LLU, regardless of the number of students and / or staff; 9. Changes need to be made to the staff workload calculation policy
Possibilities	1. To form and become a regional veterinary medicine study and science centre; 2. Political changes; 3. Restructuring of universities and changes in the Law of Higher Education Institutions; 4. Expansion of international cooperation; 5. Increasing scientific potential and returns; 6. Attract foreign lecturers; 7. Involvement in various international projects; 8. Geographical location in the region.	

Threats	1. Financial crisis; 2. Political changes; 3. Restructuring of universities and changes in the law of higher education institutions; 4. Insufficient remuneration, attraction of specialists, including foreign; 5. Staff overload and burnout; 6. Insufficient funding for the provision of the educational program and scientific work; 7. Insufficient provision of laboratories and practical training premises necessary for the provision of specific study courses with an ever-growing number of students.	1. We have no opportunity to influence; 2. It is impossible to influence; 3. It is impossible to influence; 4. Changes in staff workload calculation policy; 5. Changes in staff workload calculation policy; 6. The country needs changes in the total remuneration policy AI; 7. Investment in training and research infrastructure

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

The administrative staff to ensure the operation of the study field is: dean, vice-deans, program directors, institute directors, director of the veterinary clinic. VMF faculty record keeping specialists

(3) are employed as support staff in the implementation of study field programs, who supervise students and organize and manage faculty record keeping, inform students, perform internal and external document circulation and accounting. The study direction is implemented at the Faculty of Veterinary Medicine of the Latvia University of Life Sciences and Technologies (hereinafter - VMF). The inclusion of the study field at the VMF of the Latvia University of Life Sciences and Technologies fully corresponds to the goals defined in the regulations of the faculty. The aim of VMF is to provide students with academic and professional education, to carry out scientific research in the field of veterinary medicine.

All VMF institutes participate in the implementation of the study direction: Preclinical Institute, Clinical Institute, Institute of Food and Environmental Hygiene and LLU Veterinary Clinic. Other faculties of the Latvia University of Life Sciences and Technologies (Faculty of Information Technology; Faculty of Environment and Civil Engineering; Faculty of Food Technology; Faculty of Technology; Faculty of Agriculture; Faculty of Forestry, Faculty of Economics and Social Development), centers (Language Center, Lifelong Learning Center, Sports Center) and training centers also participate in research farm Vecauce. The study field is included in the general structure of the Latvia University of Life Sciences and Technologies, the institution responsible for the study field and the implementation of its programs is the Faculty of Veterinary Medicine.

The director of the program is responsible for the implementation of the study program in accordance with the “Regulations on the directors of study programs” (Decision No. 9–81 of the Senate of the Latvia University of Life Sciences and Technologies, April 12, 2017). The director of the program is approved by the Senate of the Latvia University of Life Sciences and Technologies on the basis of the decision of the Study Council. The main responsibilities of the study program

director: to organize the development of the study program on the basis of the decision of the faculty council on the development of a new study program and the decision of the LLU Senate "Regulations on development, approval and change of study programs at LLU"; to prepare information for the annual report of the self- evaluation of the study program direction; to organize and ensure the development of study course programs in accordance with the requirements; to coordinate the improvement of study courses, succession of courses and compatibility; to submit the study plan to the methodological commission of the faculty for evaluation, as well as the programs of study courses, internships and other components of the study program; to co-operate with the dean of the faculty and the heads / directors of the departments / institutes / centers, teaching staff, students in the improvement of the study program; to regularly inform students about current processes, activities and requirements in studies; to organize surveys of graduates, employers and students, to analyze the results of the surveys and to propose the elimination of the revealed shortcomings; to follow the evaluation of the teaching staff involved in the study program at LLU IS, to evaluate the results; to cooperate with the Study and Communication and Marketing Centers of the Latvia University of Life Sciences and Technologies in advertising the study program. The rights of the director of the study program: to propose changes in the study program, informing the head / director of the profiling department / institute / center, the dean about them; to request information related to the study program from the structural units of the Latvia University of Life Sciences and Technologies; to provide proposals for the development of LLU internal normative documents and improvement of the existing ones. Program directors and responsible departments and / or institutes are involved in the work of the Methodological Commission, thus establishing cooperation in the interconnection of programs and practical implementation of the programs ("Regulations of the Methodological Commission", LLU Senate Decision No. 6 - 107, April 9, 2008). The composition of the methodological commission is approved by the faculty council. The main tasks of the Methodological Commission are: review and coordination of study program plans in accordance with the effective regulatory enactments of the Republic of Latvia and internal regulatory documents of the Latvia University of Life Sciences and Technologies; review and evaluation of new study courses and plans; evaluation of study program licensing, accreditation and self-evaluation reports; review and coordination of study plans; examination and evaluation of study course programs, their content, in accordance with the guidelines of the study program / specialization directions to be acquired. Methodological commissions are formed by study levels (basic studies - doctoral studies).

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

The procedures and requirements for admission of students to the LLU have been determined in accordance with the Law on Higher Education Institutions, Cabinet Regulation No. 846 of 10.10.2006 "Regulations Regarding Requirements, Criteria and Procedures for Admission to Study Programmes, The Constitution of the LLU, the Decision of the Senate on admission regulations in the relevant study year, the Order of the Vice-Rector for Studies "On the Procedures of Admission Process in the LLU".

Admission rules for all LLU study programs are approved by the Senate every year in October and published on the LLU website. For those interested, the rules are available in https://www.llu.lv/lv/uznemsana (Latvian only), in English - https://www.llu.lv/en/degree-programmes.

New students are admitted by competitive procedure in accordance with the competition criteria set out in the admission rules.

The admission procedure is determined by the Order of the Vice-Rector for Studies of the Latvia University of Life Sciences and Technologies "On the Procedures of admission process LLU" and the Order of the Vice-Rector for Studies of the Latvia University of Life Sciences and Technologies "On mutual rights and obligations of applicants and LLU in the admission process".

The second level professional study programme Veterinary Medicine sets out the requirements for admission – general secondary education or vocational secondary education. New students are admitted to the competition on the basis of the results of their centralised exams in Latvian, foreign language (English, German, French or Russian) mathematics, and results of their centralised exams or certificate/diploma year grade in Chemistry and Biology.

Outside the competition, applicants who have fulfilled the specified requirements and are the winners of the international and local level Olympiads accepted by the Ministry of Education and Science of the Republic of Latvia, the first three places/grades in the competition for scientific research works of pupils of the Republic of Latvia in the subjects and fields/sections of study specified by the faculties is admitted.

Applicants can apply for the study programme using an e-service (portal latvija.lv) and the unified admission system in which applicants' applications are processed simultaneously for 12 Latvian universities (Latvia University of Life Sciences and Technologies, University of Latvia, Riga Technical University, Daugavpils University, Liepaja University, Vidzeme University College, Rezekne Academy of Technology, Ventspils University College, Baccalaureate of Business and Culture, Business, Arts and Technol "RISEBA", ISMA). The single system brings a number of advantages:

- For higher education institutions – to forecast the number of potential students who will enter into a study contract
- Applicants – to confirm the application for studies closer to their place of residence, to follow their opportunities to study in the selected study programme, to receive the results of the competition promptly.

Admission of international students is determined by the LLU Senate Decision "Admission Rules for Studies in English", which is organized in accordance with Section 83 of the Law on Higher Education Institutions. Information on admission to international students is available at: https://www.llu.lv/en/how-to-apply

Admission of foreigners to the LLU is organised by the International Cooperation Centre (SSC) in cooperation with the Study Centre (SC) and the Language Centre. A foreigner is matriculated for studies in the LLU if the following conditions are met:

1. the level of education and final assessments obtained comply with the general admission requirements laid down by the LLU;
2. in accordance with Section 85 of the Law on Higher Education Institutions, a statement has been received from the Academic Information Centre (AIC) on the academic recognition of educational documents in Latvia;
3. the applicant has fulfilled the admission requirements of the relevant study programme;
4. knowledge of English at least level B2;

5. applicant has fulfilled the requirements related to entering and staying in Latvia.

The admission process is completed at the SSC by designing and transferring an established student's personal file to SC.

Doctoral programme Veterinary Medicine Admission Requirements – persons with a master's degree in veterinary medicine, as well as veterinarians who have graduated from the six-year-old veterinary undergraduate study programme may enrol in the program. Information on admission requirements: https://www.llu.lv/en/doctoral-study-programme-veterinary-medicine.

Prospective students may also start studies in later stages of study if they have previously acquired knowledge, skills and competences in formal education or in non-formal education. The by-laws and procedures for starting studies in later stages of studies and recognition of knowledge, skills and competences acquired outside formal education or acquired in professional experience have been approved by the LLU. Information on starting studies at later stages of studies is available at: http://www.llu.lv/lv/pariesana-no-citas-augstskolas (Latvian only); http://www.llu.lv/lv/atjaunosanas-studijam (Latvian only).

In the second level professional higher education study programme Veterinary Medicine (2013/2014-2018/2019) 15 students have started their studies in later stages of studies, which are renewed after a break in studies (exmatrikulation).

Recognition of study results achieved in previous education or professional experience take place in accordance with the Law on Higher Education Institutions; Cabinet Of Ministers Regulation No. 505 of 14.08.2018 " Rules for the Recognition of Competences Acquired Outside Formal Education or Professional Experience and Learning Outcomes Achieved in Previous Education ", Order of the Vice-Rector for Studies "On evaluation and recognition of study results achieved in previous education or professional experience in the LLU"; Senate decision "Regulations for recognition of study results achieved in previous education or professional experience". Information available at: https://www.mc.llu.lv/index.php/pakalpojumi/pieredzes-atzisana (Latvian only)

During the reporting period recognition for knowledge acquired outside of formal education was performed for one student, in the amount of 1,5 CP. The student had previously acquired a licenced adult education programme. After receiving the student’s application, a Study result recognition commission was made which then evaluated the submitted documents and made the decision.

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

While analyzing the study program students' performance evaluation criteria, which form the study program, direction and faculty strategy, several indicators are taken into account: student satisfaction level, employer feedback, graduate competitiveness in the labor market (application of knowledge, skills and competences in professional activities), accreditations - national and international (EAEVE), admission / graduation rates, financial indicators, etc. In its turn, the basic principles and procedures for the assessment of students' knowledge are determined by internal regulatory documents of the Latvia University of Life Sciences and Technologies. The quality of students' knowledge is assessed both according to the qualitative assessment - (examinations are assessed with a grade in the 10-point evulation scale or the evaluation “pass / fail”) and according

to the quantitative assessment - credit points (CP), which characterizes the student's workload (contact hours and independent work). The amount of credit points to be obtained is indicated in the study plan. LLU students' success evaluation criteria, conditions and binding procedures are described in the Study Regulations, which is available in Latvian: https://www.llu.lv/sites/default/files/2021-05/Studiju_nolikums_2021.pdf (Latvian only) in English - https://www.llu.lv/sites/default/files/2021-05/Study_regulation_2021_EN.pdf.

The person responsible for the development of the study course, develops the course in accordance with the mapping of the study program and its connection with the aims of the study program, the acquired knowledge, skills and competence. The lecturer defines the knowledge, skills and competence in the study course program, as well as the type and level of their implementation and indicates the learning paths. Study course programs define: testing and examination methods; evaluation criteria and methods, as well as criteria for posting marks; the programs are placed in the e-learning environment Moodle and each lecturer introduces it at the beginning of the course; Assessment is based on the principle of summing up positive performance, which gives students the opportunity to show the extent to which they have achieved the expected learning outcomes.

The principles of evaluation of the final thesis are determined by the decision of the Senate "Regulations on final examinations"; and the subsequent orders of the Rector and Vice-Rector for Studies. These documents, including the VMF Methodological Guidelines for the Development and Defense of Papers, Order of the Rector of the Latvia University of Agriculture (No. 4.3-8 / 72 04.10.2017) "On Academic Integrity Violations in Students' Theses / Doctoral Theses", and qualitative assessment of students. The total assessment on a 10-point scale consists of the work evaluation, the work review / reviews and the defense of the work at the final thesis defense commission.

The evaluation of the practice is based on the decision of the Senate "LLU Practice Regulations"; The order of the Vice-Rector for Studies "On the preparation of internship orders at LLU IS", where the student is evaluated in accordance with the purpose of the internship, internship tasks and individual internship task. The evaluation of the internship consists of several stages of the internship process - the internship report, the reference of the internship site manager, the presentation of the internship report. Internships are assessed on either a 10-point scale or a grade of "passed / failed". The assessment is made by the internship defense commission on the basis of the content of the internship report, the results of its internship defense and the reference of the internship site manager.

The procedure and criteria for the evaluation of doctoral theses and the awarding of a doctoral degree are determined by the Regulations of the Cabinet of Ministers of the Republic of Latvia No. 1001 25 "Procedure and criteria for awarding a doctoral degree (promotion)", LLU Senate decision "Regulations on promotion councils and promotion" (https://www.llu.lv/sites/default/files/2017-05/Promocijas_nolikums_2017%20apstiprin%C4%81ts.pdf (Latvian only). In accordance with these normative documents, the Doctoral Council of Veterinary Medicine is responsible for the evaluation of the doctoral thesis and the awarding of the doctoral degree, the composition of which is approved by the order of the Rector of LLU (https://www.llu.lv/sites/default/files/2020-05/Promocijas%20padomes%202020.pdf) (Latvian only). Requirements for the design of the doctoral thesis are determined by the decision of the Study Council of the Latvia University of Agriculture "Requirements and guidelines for Doctoral thesis" (https://www.llu.lv/sites/default/files/2019-06/Zinatniska_darba_tehniska_noformejuma_noteikumi.pdf) (Latvian only). Such a procedure, criteria, principles for the assessment of students' achievements at different levels, promotes the achievement of the goals of study programs and ensures the assessment of student-centered learning.

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

Academic integrity is defined in Regulation of studies. Academic integrity is explained as conducting academic work according to the highest standards of professionalism and accuracy, objectivity and truthfulness, moral and ethical principles, integrity, including prevention of plagiarism, providing truthful information and accuracy in academic publications, during communication and publicity activities that shape the image of academic environment.

LLU Academic integrity **tasks**:

- to respect a high academic and scientific culture,
- to promote public confidence in the quality of education and the results of scientific research,
- to prevent and eliminate violations of the principles of academic integrity,
- to establish liability for unfair and unauthorized conduct.

Students and the academic, general, scientific and administrative staff of LLU are equally responsible for the observance of the principles of academic integrity and for the consequences of the violation of academic integrity.

LLU has developed and follows certain procedures for the examination of plagiarism of final theses and actions, if it is detected:

- LLU RECTOR'S REGULATION "On submission procedure of electronic copies of theses and their control in the online plagiarism control system";
- LLU RECTOR'S REGULATION "On Academic Integrity Violations in Students' Theses / Doctoral Theses".

In 2014, LLU concluded an agreement on the use of the inter-university unified computerized plagiarism control system (hereinafter the System) and started the examination of all final theses on plagiarism in both undergraduate and master's studies. Starting from 2017/2018. LLU determined that the obligatory examination of plagiarism must also be performed for doctoral theses.

The procedure provides that if in the final work the system finds 10% coincidence of the text with another work, then the LLU work is reviewed by the Faculty Methodical Commission / field Promotion Council and decides on the presence or absence of plagiarism, after receiving explanations from the author and supervisor. Since the introduction of the unified computerized plagiarism control system, LLU has detected a total of 124 suspicious works. Discussions were conducted with the authors of all works, 18 students were suspended and ex-matriculated from the final examination, of which 2 students were ex-matriculated in the 2018/2019 study year.

In the period from 2014 to 2019, 7 doctoral theses have been examined in the study direction Veterinary Medicine. No one has been identified as plagiarism.

1.8. Specify the websites (e.g. the homepage) on which the information on the study direction and the relevant study programmes is published (in all languages in which the study programmes are implemented) by indicating the persons responsible for the

compliance of the information available on the website with the information published in the official registers.

Information on study directions and study programs is published on the website of the Latvia University of Life Sciences and Technologies www.llu.lv, incl. current events on what is happening in the respective study programs, as well as basic information about each study program. Detailed information (descriptions of study programs) is available in the section: Studies / Study programs -> https://www.llu.lv/index.php/en/degree-programmes and in the section Come to study / What to study?

Information in English about study programs is available on the English page of the Latvia University of Agriculture: Studies / Degree Studies / Degree Programs -> https://www.llu.lv/en/degree-programmes

All descriptions of study programs can also be accessed through the home page of the Latvia University of Agriculture and the Faculty of Veterinary Medicine http://www.vmf.llu.lv/ (Latvian) : Studies / Study opportunities -> https://www.llu.lv/index.php/en/degree-programmes

Information about study programs is also available in electronic informative materials (booklets), incl. information about the study program and graduates' feedback that has been collected.

- Study booklet: https://www.llu.lv/sites/default/files/2019-02/LLU-pamatstudiju-buklets-2019-WEB.pdf (Latvian)
- Master's study booklet: https://www.llu.lv/sites/default/files/2019-03/LLU-Magistra-studijas-2019-web_0.pdf (Latvian)

Responsible structural units for the compliance of the information available on the LLU website with the information available in the official registers:

- Study center on 1st level, basic study and master study programs;
- Study center on doctoral study programs;
- International Cooperation Center for study programs in English.

The information on the LLU website has been prepared in cooperation with the director of each study program.

Information about LLU study programs is also available on the portal www.prakse.lv: https://www.prakse.lv/edu/profile/84/latvijas-lauksaimniecibas-universitate (Latvian)

Person responsible for posting information: Project Manager of the Lifelong Learning Center.

Information about LLU study programs is also available in the National Database of Educational Opportunities www.niid.lv: http://niid.lv/niid_search?qy=Latvijas%20Lauksaimniec%C4%ABbas%20universit%C4%81te&level_1=7

The LLU website provides information on the conditions and procedures of academic mobility in accordance with the Erasmus + University Charter and the program guidelines:

- Https://www.llu.lv/lv/stnationaliska-mobilitate - in Latvian.
- Https://www.llu.lv/en/exchange-studies - in English.

LLU subscribes to study e-marketing sites:

- Https://www.masterstudies.com/universities/Latvia/LLU/
- Https://www.educations.com/search/jelgava

For foreign students
1) LLU website provides comprehensive and detailed information to potential and existing full-time students from abroad:
· On the offer of LLU study programs in English, see http://www.llu.lv/en/degree-programmes, where the description of each program is detailed up to the study plan, for example, https://www.llu.lv/sites/default/files/2016-10/MBA_LLU% 281% 29.pdf

· On the admission process step by step, see http://www.llu.lv/en/how-to-apply
· On immigration procedures, see http://www.llu.lv/index.php/en/immigration
· For study and living conditions, see http://www.llu.lv/sites/default/files/2018-11/LLU-Celvedis-EN-2018-17.10.pdf; http://www.llu.lv/index.php/en/before-arrival; http://www.llu.lv/index.php/en/about-university-0;
· For references from foreign students, - http://www.llu.lv/en/student-testimonials-7

The director of the study program or the external relations coordinator of the faculty is responsible for the compliance of the content of the information posted on the websites or its changes with the official information, but the external communication coordinators of the LLU Center for International Cooperation (SSC) are responsible for posting on these websites.
LLU International Cooperation Center has prepared and published informative booklets "Erasmus + Mobility Information Handbook" "Degree Studies", information sheets, etc. materials used to promote study programs and exchange studies at marketing events.

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

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

Coordination of studies is ensured by the Study Methodological Commission (MCC) established at the faculty (rules of procedure are adopted by the University Senate on April 9, 2008), headed by the vice-dean of studies, who is responsible for monitoring the quality of the study program; analyze the curriculum and coordinate teaching between different departments and institutes; to provide recommendations regarding changes in the content and structure of the study program and study plan (syllabus). If necessary, the commission initiates negotiations on the content and scope of subjects with the academic staff of other faculties participating in the training of veterinary students; discusses student complaints and seeks solutions. The initiative of any changes in the curriculum may be submitted by the leading lecturer and / or institute.
The director of the study program is fully responsible for all aspects of the quality of the study

process and is a member of the University Study Council; represents the veterinary medicine study program at the university level and explains the veterinary medicine study needs to other university structures.
In addition to the work of the Study and Methodological Commission, the heads of interconnected study courses often meet to coordinate operational issues related to both the content of the study courses and the planning of deliveries of materials / reagents, etc.
As the clinic is the main place for students' practical / clinical training, it is very important to coordinate activities between the institutes of the faculty with the work of the clinic. Thus, each time before the beginning of the semester, the clinic administration is informed about the research plan and the necessary resources - premises, materials, animals, etc.
To ensure that the study requires a special structure, a Clinical Council is established. It consists of the dean of the faculty, directors of institutes; Clinic director, clinic department heads. The council is chaired by the director of the clinic. The members of the hospital council are accepted by the faculty council. It evaluates the results of the clinic, consults with the clinic managers and adopts the strategic development of the clinic.

The quality assurance system implemented at university level and the provision and implementation of the processes included at the Faculty of Veterinary Medicine are ensured by the Dean, programme directors, institute directors of faculty and institute administrators.

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

The development of new study programs at LLU takes place in accordance with the regulations approved by the Senate “Regulations on study programme development, approval and amendment at LLU” (https://www.llu.lv/sites/default/files/2019-03/Studiju_programmu_izstradasanas_noteikumi_2019.pdf) (Latvian only).

The regulations stipulate that before the study program is approved by the Senate, it is discussed and analyzed in the Methodological Commission of the faculty, VMF Council and LLU Study Council.

Existing study programs are regularly reviewed every study year, as a result of which an annual report of the study field is created. Reports are available on the LLU website: https://www.llu.lv/lv/studiju-virzienu-parskati-un-pasnovertejuma-zinojumi (Latvian only). The reports are analyzed by the Faculty Council, the Study Center, the Study Council and approved by the Senate.

Teaching staff, students, industry representatives, graduates are involved in the improvement of study programs. The teaching staff improves the study courses, therefore, the study program, firstly discussing it in the meetings of the responsible institute, further proposed changes are under consideration by the Methodological Commission of the faculty and then are submitted to the VMF Council.

Students are invited to complete an anonymous survey in personal user accounts at the end of a study course, giving their assessment and comments/recommendations. The director of the study program analyzes the obtained information from the study course surveys. The obtained information is discussed with the dean, the directors of the institutes, as well as feedback is provided to the students during the monthly meeting.

One of the ways to receive feedback from graduates and employers is from the Latvian Association of Veterinarians (LAV). LAV is the only professional non-governmental veterinary organization in Latvia which representing veterinarians in Latvia. Accordingly, information on current events in the industry is obtained and provided. An Advisory Board of the Faculty of Veterinary Medicine has also been established, consisting of representatives from Ministry of Agriculture, Food and Veterinary Service, LAV, related industry organizations (e.g. Latvian Agricultural Organization Cooperation Council) and other institutions representing the field, which provides feedback from graduates and employers. One of the goals of the Advisory Board of the Faculty of Veterinary Medicine is to promote the development of veterinary medicine education and science in Latvia and to provide proposals on the development of the veterinary medicine sector in Latvia as a whole.

The improvement of the study program also takes place after listening to the report of the State Examination Commission, which is presented to the VMF Council. The report is also read at the formal sitting on the day of graduation. The State Examination Commission consists of teaching staff from the field, representatives of the industry and practicing veterinarians. The commission, after listening and then analyzing the students' answers, prepares a report of the State Examination Commission, where recommendations for the improvement of the study program are provided.

The existing study programs are regularly reviewed every study year, as a result of which the annual report of the study field is created. The reports are available on the LLU website https://www.llu.lv/lv/studiju-un-reglamentejosie-dokumenti. The reports are analyzed by the Faculty Council, the Study Center, the Study Council and approved by the Senate.
In the period from 2018 to 2021, all study programs are evaluated in detail within the LLU project “Improvement of the Management of the Latvia University of Agriculture”. Foreign experts and representatives of the respective industry (employers) participate in the evaluation of the programs. Study program improvement plans will be developed and implemented based on expert recommendations.

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

The procedures for the submission and examination of student complaints and proposals are determined by Paragraph 5 of the Regulation of Studies of the LLU, which is freely available on the website of the LLU: https://www.llu.lv/sites/default/files/2021-05/Study_regulation_2021_EN.pdf

The study regulations state that during their studies students have the opportunity to make claims regarding the assessment of the examination/final study work, the organization and course of the study process, the tuition fee and exmatriculation. The study regulations state that in case of

claims, the student must first try to pronounce the situation with the involved teaching staff, but if an agreement cannot be reached, he or she must write a written complaint to the director of the responsible structural unit (institute), the director of the study programme and/or the dean of the faculty. After receipt of a written complaint, it is examined by the appeal panel within a maximum of seven working days, the composition of which is approved by order of the dean. If the student is not satisfied with the decision of the appeal commission, it may be appealed to the next grade official (Vice-Rector for Studies, Rector). The highest dispute resolution body in the LLU is the Academic Arbitration Court. The abovementioned officials and the Academic Arbitration Court of the LLU take and notify the decision in accordance with the procedures laid down in the relevant laws and regulations.

The need for a proposal and complaint handling procedure is also determined by the Quality Management System of the LLU, which is based on the basic principles and requirements of the International Standard of Excellence "Contribution to Excellence".

During their studies, students have the opportunity and the right to submit proposals and complaints regarding the study process and related matters. Students may submit proposals:

in writing or orally at faculty level – to the curator, director of study programme, vice-dean ordean;

in writing or orally at the level of management of the LLU – to the Study Centre, the Vice-Rector for Studies, the Study Council and the Senate, examining and approving various internal regulatory documents.

If a student has submitted a written complaint, then after examining it, he or she shall receive a written reply if the examination of the complaint has taken place without the presence of the student.

In order to explain the issues related to studies (uncertainties regarding the study process, assessment requirements, deadlines for execution of works, regulations, etc.) and to listen to proposals, as well as to prevent possible conflicts in a timely manner, meetings of the VMF Student Union, course head and the management of the VMF are held once per calendar month. Students of the veterinary medicine study programme are invited to address questions about the quality of the study process, the availability and quality of methodological and informative provision, infrastructure and material technical support and quality to the curators, the decanate, as well as the representatives of the student self-government, the seniors of the groups and courses.

In preparing this report, we asked the VMF Student Union to clarify the students' views on the experience of submitting and reviewing complaints and proposals of the VMF. Students admit that they are relatively rarely in contact with curators. As a rule, students present their thoughts on the study process (both proposals and complaints) to the senior of the course, who will pass on the information to the representatives of the student union. Students take a very positive view of these special information exchange sessions between students and the director/dean of the study programme, which takes place on a monthly basis. At these meetings, everyone meets to discuss conflict situations openly and to hear suggestions, as well as to announce news. As a positive example of the fact that the VMF actually operates this system of student complaints and proposals, students mention the actions of the fourth year in a situation that resulted in the whole 4th year wishing to make claims about the work of a particular teaching staff. After identifying the problem, the senior of the course talked to the particular faculty about the situation that did not bring results. Next, the information was passed on to the representatives of the student union, who discussed the situation with the dean at the monthly meeting. Students acknowledge that after this conversation, the faculty's communication with students and the quality of the subject improved.

Over the past two years, students have complained about the type of examination and evaluation

changes in individual study courses comparatively more frequently (adapting to remote studies), as well as insufficient communication of teaching staff (e.g. non-reply to e-mails, lack of consultation).

It should be noted that all conflict situations have so far been resolved at faculty level and no student complaints have reached the LLU highest complaint handling level - the Academic Arbitration Court.

Students' suggestions for improvement of the study process are also heard and further promoted in cooperation with the VMF department of the Student Union of the LLU. Every year, the VMF Student Union elects representatives in the composition of the VMF Council, as well as the VMF Training Methodological Commission, the Scholarship Award Commission. The number of students in the WMF Council and commissions is in accordance with the requirements laid down in the relevant normative documents of the LLU. Another way for students to make their proposals is through anonymous questionnaires that students fill out voluntarily and anonymously in the LLU information system at the end of each session. This assessment can be viewed by the teaching staff themselvesand the head of the unit and the dean of the VMF. The summary of the assessment is examined by re-electing the teaching staff to an academic position.

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

LLU centrally collects statistical data in different sections and with different regularity.
Once a month:
1. Number of students by study programs, types and forms of studies, study directions and faculties - the collected statistics are sent to the management of LLU and deans of faculties. Statistical data are used to follow the dynamics of the number of students at LLU.
2. Execution of state-funded study places - data are collected by study programs in order to follow the execution of state-funded study places. These statistical data are used to forecast the number of new state-funded students and the number of places for student rotation in each semester (competition for state-funded study places) - the collected statistics are sent to LLU management and deans of faculties, vice-deans of faculties as needed.

Once in a study year
1. Number of graduates by study programs, study directions and faculties, types of financing - data are used for preparation of various reports (for example, LLU annual report https://www.llu.lv/lv/llu-pamatdokumenti)
2. Admission results - admission results in different sections. Admission results are used to plan admission limits and forecasts for each subsequent year.
3. LLU Statistical Data Collection University-1 for the Central Statistical Bureau (CSB) Data collection is compiled on the basis of the forms specified by the CSB. The collected data is also sent to the Ministry of Education and Science and is available to all interested parties (https://izm.gov.lv/lv/publikacijas-un-statistika/statistika-par-izglitibu/statistika-par-augstako-izglitibu (Latvian)). The data is also used for the preparation of various reports (for example, the annual report of the Latvia University of Agriculture).

Once a year:
1. Summary of statistics by fields of study - the summary is made for the previous study year -

number of students by study programs, types and forms of studies, graduates, dropouts and reasons for study dropouts, statistics of foreign students. These summaries are received by all study program directors and these data are used for the preparation of annual reports of study fields for evaluation (available at https://www.llu.lv/lv/studiju-un-reglamentejosie-dokumenti) (Latvian).
2. Execution of state-funded study places by year - data are used for preparation of LLU, MoA and MES contract execution reports.
3. LLU Development Strategies 2015-2020. Summary of the performance indicators of the educational programs - the data are used for the annual reports on the implementation of the Development Strategy and for the cascading of the performance indicators for the next year. Strategy implementation reports by faculties take place in face-to-face meetings.

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

Quality assurance in study programs at all levels is implemented in accordance with the standards and guidelines for quality assurance in the European Higher Education Area (ESG) developed by ENQA (European Network for Quality Assurance in Higher Education).

Integration of the standards included in Part 1 of the ESG in ensuring the internal quality of the study directions:

- ***ESG 1.1. Policy for quality assurance*** - standard fully integrated in the study process this is confirmed by the development of a quality assurance policy for the LLU as part of the overall quality management system of the LLU. To monitor the quality assurance of the study environment, a self-evaluation report of the study program is written once a year, which reflects the changes that have taken place. LLU academic staff and other employees, students, industry representatives are involved in quality assurance. The learning environment is regularly improved by supplementing the material-technical base, improving the learning process, supplementing the library's resources. LLU Quality Management System description and assurance plan can be found on the LLU website: https://www.llu.lv/sites/default/files/2020-08/Quality%20Assurance%20System.pdf
- ***ESG 1.2. Design and approval of programmes -*** standard fully integrated in the study process. For more detailed information, see point 2.2.2 of the report.
- ***ESG 1.3. Student-centred learning, teaching and assessment*** - standard integrated in the study process. For more detailed information, see point 1.1.6. and 2.2.3. of the report as well as in point 2.2.3 of the description of the study program. During the studies there is a versatile and in-depth integration of practical training in the study process. In addition to the usual study process, various tools from the e-learning system Moodle are used, which makes pedagogical methods more diverse. The students' tendency to be independent can be assessed as a **challenge**. It is necessary to encourage students to use the offered resources and for the teaching staff to remain a support and lead this study process.
- ***ESG 1.4 Student admission, progression, recognition and certification*** - standard fully integrated in the study process. Imatrication in LLU is based on the admissions rules approved by the LLU Senate of the respective study level. Admission rules are approved every year. For more detailed information, see point 1.1.5. of the report. LLU has an internal information system, which provides detailed information about each student. Every student

has a personal account in which he or she can keep track of his studies.

- ***ESG 1.5. Teaching staff*** - standard fully integrated in the study process. For more detailed information, see points 2.3.3.4., 2.3.3.5. and 2.3.3.6. of the report**.** The teaching staff is competent, increases their qualification and is able to ensure the courses of the study program in English and Latvian. **Increased attention** should be paid to overload and burnout of teaching staff, as both academic and scientific workload are high. The **challenge** is to attract foreign lecturers, local highly qualified specialists, as well as to ensure the continuity of study courses when the teaching staff changes.
- ***ESG 1.6. Learning resources and student support*** - fully provided. For detailed information on infrastructure and logistics, see point 2.3.3.2 of the report. For the range of library and teaching resources for students, see point 2.3.3.3 of the report and for financial, technical, curatorial and other support, see point 2.3.3.7 of the report. Infrastructure and material-technical provision are appropriate for the provision of first-day skills, especially in the field of clinical sciences. It is necessary to expand the infrastructure, especially for the provision of specific study courses - equipped laboratories and practical training rooms. In the study process, significant support for students is provided by study program directors, heads of VMF structural units and VMF Dean office staff.
- ***ESG 1.7. Information management*** - LLU has an internal information system, which has restrictions on the availability of information depending on the specifics of the work. Information about each student is entered into the internal information system. All students use personal user accounts, where they can keep track of their study information (personal information, assessments, completed study courses, teacher evaluation questionnaires, funding sources, scholarships, as well as other study-related information). The Moodle e-learning system contains study courses to be acquired in each study semester. Study materials, various tasks prepared by the teaching staff, self-examination tests and other necessary information for successful studies are placed there. The e-learning system is also used for communication between teaching staff and students. MansLLU is an internal information system platform where various up-to-date internal information is available. Surveys, meetings with students are conducted to obtain information about students' satisfaction with the study process, as well as the necessary improvements in it. The obtained data / information is analyzed and discussed in internal meetings with the dean, vice-deans and heads of institutes. **Increased attention** should be paid to the questionnaire of students as well as graduates. Currently, information on graduates' career is obtained from the Latvian Association of Veterinarians, which maintains a register of certified veterinarians.
- ***ESG 1.8. Public information*** - standard fully integrated. Up-to-date information on study opportunities in study programs of all levels is published on the LLU homepage https://www.llu.lv/en. Information about studies and research is published on the website. The section on studies includes information on programs, study opportunities, lesson schedules, funding and scholarships, international mobility and extracurricular life. In the section research - research directions, projects and other relevant information. The website provides information about activities at the university and events, as well as articles about prospective students and graduates. Other communication channels are also used to inform the public, such as social networks, media, participation in various exhibitions representing the field. Informing the public also takes place in close professional cooperation with the industry, as well as by participating in ministerial working groups and various commissions.
- ***ESG 1.*****9. On-going monitoring and periodic review of programmes** - standard fully integrated. LLU has developed and implemented procedures for regular survey, evaluation and review of study programs, more detailed information is available in point 2.2.2.2 of the report. Improvement of study programs takes into account the level of student satisfaction, feedback from employers, graduate competitiveness in the labor market, accreditations -

national and international (EAEVE). Increased attention is paid to the compliance of veterinary medicine programs with the requirements of Directive 2005/36 / EC and Directive 2013/55 / EU.
- ***ESG 1.10. Cyclical external quality assurance*** - external quality assessment takes place on the basis of the requirements of regulatory enactments.

The challenge is considered:

- ***ESG 1.3. Student-centred learning, teaching and assessment -*** the students' tendency to be independent;
- ***ESG 1.5. Teaching staff -*** to attract foreign lecturers, local highly qualified specialists, as well as to ensure the continuity of study courses when the teaching staff changes.

Increased attention should be paid to:

- ***ESG 1.5. Teaching staff -*** overload and burnout of teaching staff;
- ***ESG 1.7. Information management*** - the questionnaire of students as well as graduates.

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

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

The use of financial resources in accordance with the financial management policy, strategy and tactics of the LLU is implemented by the Financial Planning Centre of the LLU, which carries out financial activity planning in accordance with the laws and other regulatory documents of the Republic of Latvia. Each year, the LLU Senate approves the division of revenue and expenditure of the general budget of the LLU and the budget, which has been prepared in accordance with the law "On the State Budget" adopted by the Saeima (annual). Budget control and audit are carried out by an independent group of auditors, whose review report is also approved by the Senate of the LLU. Before approving the general budget estimate in the Senate of the LLU, the financial planning and results are discussed and updated by the Working Group on Resource Use and Development (LLU Rector's Order No. 4.3-13168), which includes all deans of faculties, chancellor, rector, Vice-Rector for Science, Vice-Rector for Studies, Head of resource accounting centre, economist, lawyer, head of the Finance Centre, etc. The main revenue and expenditure sections of the general budget for 2019 were:

- Transfer from the State budget for ensuring the study process - EUR 9451938, of which EUR 7598273 for the reimbursement, 587109 scholarships, 882271 for the total expenses and 384285 at the disposal of all LLU faculties;
- LLU Tuition fee revenue – 1885268 EUR, which is divided into compensation to teachers

1121161 EUR, for the total expenses 377053 EUR, at the disposal of all LLU faculties 377054 EUR;

- Scientific revenue/expenditure 4483825 EUR, of which EUR 935223 of the science base funding, performance funding of EUR 346 196 and other scientific projects 3202406 EUR; ERASMUS revenue/expenditure EUR 506 850;
- Donations received 10000 EUR

The Senate of the LLU has approved the proportional budget revenue/expenditure distribution procedure, which stipulates that 80% of the state funding for the implementation of study programmes consists of reimbursement costs and 20% of other costs. Of the fee-based study funding, 60% consists of reimbursement costs and 40% of other costs, of which 20% are at the direct disposal of the faculty, which implements the particular study programme and 20% is at the disposal of the faculty, which is 20% to cover centralized costs. 50% of the basic funding of science is at the direct disposal of the faculty and 50% is centralised to cover costs. In turn, the distribution of study places financed from the State budget funds and the basic costs of the study place are agreed in a tripartite agreement between the Ministry of Agriculture of the University of Latvia and the Ministry of Education and Science. A tripartite agreement of 2019 was concluded on 21 December 2018. The contract stipulates that the basic costs of one study place are 1518.98 EUR, and the social security costs of the study place are 164.34 EUR (for undergraduate and master's studies) and 2034 EUR for doctoral studies.

The coefficient of the costs of studies in the thematic field of veterinary medicine for the undergraduate programme is 4, while the doctoral study programmes have 12. What amounts to EUR 6072 per undergraduate student and EUR 18216 per doctoral student. The actual costs per undergraduate student are higher due to the relatively expensive infrastructure maintenance costs, so part of the learning process is subsidised by the fees revenue of the Faculty of Veterinary Medicine, for example, the profits of the veterinary clinic.

The total faculty revenue is reflected in the faculty's annual strategy report, which is presented to the faculty council. The tuition fee at the LLU is approved annually in June by the rector's order. For the year 2019/2020, rector's order (No. 4.3-8/ 63 as of 17.06.2019).

Science funding is formed from the funding raised in projects for the implementation of certain scientific and research projects, the remuneration of researchers and leading researchers in the project, as well as the specific project tasks. In turn, the basic funding of science, which is obtained on the basis of active scientific activity, is divided according to the performance of leading researchers and researchers in science. In accordance with Decision No. 17-6 of the Scientific Council of the University of Latvia of 28 November 2017 on the assessment of the effectiveness of scientific activity of academic staff of the LLU, leading researchers and researchers, the use of the science base is directed: 1) determining the contribution of each leading researcher and researcher to points and creating scientific performance in points; 2) by creating the amount of co-financing necessary for projects; 3) supporting the establishment of scientific infrastructure; 4) providing for co-financing in ensuring scientific activities; 5) by providing support to leading researchers, researchers in the development of scientific activity - attendance of conferences, publication fees, participation in scientific symposia etc.

3.2. Provide information on the infrastructure and the material and technical provision required for the implementation of the study direction and the relevant study programmes. Specify whether the required provision is available to the higher education institution/ college, availability to the students, and the teaching staff (the specific

equipment required for the relevant study programme shall be indicated in Part III, Chapter 3 below the respective study programme).

The study program Veterinary Medicine Study Process is carried out in the premises of the Faculty of Veterinary Medicine. The Faculty of Veterinary Medicine has its main complex of buildings in 13 blocks and auxiliary buildings (Kr.Helmanis Street 8, Jelgava, LV-3004, which is the registered office of the VMF). During the untied stage, 9 blocks (including the Veterinary Clinic of the LLU) are used in the study process, as well as in the training and research farm "Vecauce" in the cow house "Līgotnes" in the veterinary block (Vecauce parish in Auce municipality), training farm "Kalnenieki" (in Glūda municipality, Jelgava municipality). For the provision of the study programme, both the joint LLU and the study and science technical base of other faculties are used: LLU Sports Centre (with swimming pool), Faculty of Agriculture, Faculty of Forests, Faculty of Technology, Faculty of Information Technology, Faculty of Food Technology.

Audiences of all faculties are equipped with audio and video equipment (computer equipment, multimedia boards, etc.), which ensures a high-quality study process outside the VMF premises. Students and faculty have at their disposal the Technology and Knowledge Transfer Department (TAPEK), whose task is to promote the protection of intellectual property of scientists and commercial companies and the commercialization of research results in the LLU.

In the last year of the reporting period, three projects were launched: energy efficiency improvement works in LLU VMF block A at 8 K. Helmana Street, Jelgava; ensuring access to the environment of the VMF "A" corps of the LLU; Within project Modernization of LLU STEM study programs 8.1.1.0/17/I/001 auditoriums in blocks A and B are modernized.

Corpus A.

Construction works have been started in LLU VMF corpus A at K. Helmana Street 8, Jelgava, as a result of which all premises of corpus A are improved and equipped, including the premises of seminars and practical classes of the auditorium, premises for teaching staff and auxiliary staff. The premises of such study courses as "Anatomy of Domestic Animals" "Obstetrics and Gynaecology, "Reproduction of Livestock", "Internal Diseases, Livestock Health", "Reproduction of Livestock", "Surgery of Large Animals", Food Infections", "Food Hygiene and Inspection", "Food Chain Control", "Veterinary Work Organization" are improved and modernized.

After the transfer of the VMF Information Centre (library) to the VMF B corpus in November 2016, a wide audience A100 has been created, which can accommodate 70 listeners. The audience is used for lectures and seminars for all study courses. The design of renovation and modernization of another A-corpus auditorium (A-200, A-300) was also started in 2017 within the framework of the ERDF project No. 8.1.1.0/17/I/001, but the rebuilding was started at the end of 2020. All furniture and equipment have been dismantled in the auditoriums and are intended to be equipped with modern furniture, the latest generation of audial and visual display techniques.

In the premises of the preclinical institute corpus A - two Osteology training laboratories, training of the osteology part of the study course "Anatomy of domestic animals" is implemented. Osteology training mainly uses full skeletons of different livestock species, panels of individual parts of the body (e.g. distal parts of the legs), longitudinal bone sections, cross-sections and also individual bones. X-rays, handouts in Latvian, English and Latin are used as additional material. Digital osteology-3D models are offered for students' independent studies in the e-learning environment. The Osteology Museum, under the responsibility of the VMF Preclinical Institute, is also used with more than 200 full animal skeletons and other exhibits, including all farm animal species bred in

Latvia, as well as mammals and exotic animals found in Latvia. The museum of osteology also contains osteoarchaeological materials found during excavations carried out in different places of Latvia, which are used by researchers and students in the development of scientific works.

For the training of animal physiology, two physiology training laboratories are used, which are equipped with a laminar flow cabinet, microscopes, centrifuge, small laboratory technique (glucometers, refractometers, dynamometers, etc.), reagents and demonstration equipment. Physiology training is also carried out at the VMF Livestock Hospital using the necessary equipment for routine examination (e.g. portable monitoring equipment, phonendoscopes, thermometers, etc.).

For study courses Cytology, histology and embryology the training laboratory is equipped with LEICA- DM500 microscopes and a teacher microscope LEICA-DM750, additionally equipped with a camera connected to a video screen/TV. The laboratory has a rich collection of histological samples of various cells, tissues and organs, of which about 700 glasses are used as a training material. Comparative pathology laboratory students can learn the full H&E colouring protocol of the histological sample.

The Laboratory of Herd Health and Reproduction Problems of the Clinical Institute provides a learning process and scientific activity in relation to issues of reproduction of livestock, including the development of various projects and research of doctoral students, scientific work of students. For example, within the framework of the project "Preservation of genetic resources of cows in Latvia through embryo transfer and related biotechnology BioReproLV" (1.1.1./16/A/025, 2017-2021), laboratory equipment has been significantly updated and new equipment has been purchased. Including EMBRYO FREEZER-equipment for freezing cow embryos, ultrasonographs (Draminsky and Piemedical), ultrasound device for examination of cows with rectal probe Easi-scan Monitors/Easi- scan remote display, complete with glasses/VGA-BUG, microscope with integrated heating surface and heating surface control, NexiusZoom EVO binocular stereo zoom Euromex Mikroskopen B.V., oocyte aspiration pump, Minitube GmbH model 23362/0000, portable ultrasonic equipment set Logig V2, GE Healthcare etc., which provides quality work.

Corpus B

In the spacious, amphitheatre-type listening room of corpus B - auditorium (B100) with a capacity of more than 100 people, with an audio system, a multimedia projector, with forced ventilation, in which historically there was an opportunity to exhibit animals and lectures were held in all study courses, within the framework of the ERAF project (see above) a major renovation takes place. The auditorium will be equipped with electric wall screen etc. IT options, thus providing live broadcasts, for example, from the operating room of the Veterinary Clinic of the LLU etc.

In order to ensure the process of practical training of students of the Faculty of Veterinary Medicine in accordance with the recommendations of the EAEVE, introducing more modern and up-to-date, effective and ethical training for students' clinical skills, including non-invasive clinical training simulators, simulator laboratory was established at the Institute in 2015. The aim of this laboratory was to introduce a non-invasive, non-traumatic practical training model in all clinical subjects using model or simulator training, providing high-quality practical, veterinary medicine practice necessary manipulation training for VMF Latvian and English flow students. Practical classes are held in the laboratory premises, as well as independent work of students under the supervision of the staff of the Institute. It is possible to master manipulations using high-quality moulages. Of which: Dog's legs for venous blood sampling, moulage (cat) for injection, moulage (dog) for injection, moulage - dog's head, moulage - cat with open organs, simulator - dog's head for trachotubus administration (ITEM #2006,VET Ejjects); simulator (horse's head), freezer for storing native material for practical lessons, etc. Moulages are being restored, as well as the development of simulator laboratory to

purchase simulators for training in the field of livestock. For example: pattern of difficulty in childbirth, newborn calf, artificial insemination simulator, virtual reality cow reproductive examination simulator, horse colic simulator.

For the provision of seminars, practical classes in the study subjects "Internal diseases", "Clinical diagnostics", "Radiology", etc. an equipped seminar room with multimedia projector, magnetic whiteboard, dimming possibilities (together with auxiliary premises-warehouses 88.70 m2).

For seminars, practical classes in the subject "Reproduction of livestock I, II", "Obstetrics and gynaecology" premises with a total area of 118.9 m2 are used. Phantom for the provision of childbirth assistance to farm animals, a set of gynaecological tools for the provision of calving assistance are used. The room has a horizontal freezer for storing native material for practical purposes. For the purposes of practical classes, the Clinical Institute enters into a cooperation agreement with a slaughterhouse for certified animals.

In corpus B there are also working premises – administrative (Director of clinical institute) and auxiliary staff, economic, IT support service. As of 2016, the VMF Information Centre is located in corpus B, the services of which are used by students, faculty and also by faculty guests.

Economically, in 2020, renovation was started in seminars, practical classes room B109 - together with an auxiliary room.

S housing

As a result of the ERAF project "Modernization of LLU training infrastructure" (2011-2012), the Clinical Institute is responsible for a functional, extensive large animal hospital, Clinical Institute training animals, experimental animals used in projects, LLU Veterinary Clinic (LLU VK) Large Animal Clinic and Horse Clinic for housing patients, thus providing practical training of students with farm animals and horses of different species.

When the LLU VK was launched, in March 2013 the clinical institute's material technical base, which included high-level diagnostic equipment, laboratory equipment and equipment purchased up to then, tools, work desks, etc. under the responsibility of the Veterinary Clinic of the LLU, providing practical training, scientific activity and business needs of students for animals of all species. For small animals - Small Animal Clinic, for horses – Horse Clinic, for livestock – Farm Animal Clinic, as well as providing visits to patients to farms with a Mobile Clinic. As a result, students' opportunities for practical training in a real environment in different animal sheds and keeping conditions expanded. Until 2019, the 4-wheel drive SUV Toyota Hilux under the responsibility of the Clinical Institute was used for these purposes, which, using a transport trailer (Humbaur) for transporting animals, was also used for transportation of patients to the faculty, as well as training for animal transport, procurement of a feed base etc.

The total area of the hospital – about 940 m2, includes 12 rooms for horses, including 2 rooms specifically equipped for the treatment and isolation of infectious diseases. Group of premises (sanitary edible, changing room, rest room) for staff, small ruminant housing (animals intended for training), housing for rabbits, and housing for patients of the Large Animal Clinic (cattle, alpacas, goats, sheep etc.), equipped with platform scales.

The clinic of large animals undergoes practical training of students, gynaecology and andrology examination of animals, surgery, examination and treatment of large animals, investigation and treatment of small ruminants, examination and treatment of exotic animals. The clinic is equipped with multifunctional looms for fixation of cattle for examination, manipulations and surgical operations, hoof care etc. All the equipment and equipment at the disposal of the Institute, as well as the equipment at the disposal of the LLU VK, are used in practical training, scientific work and

patient care of students.

The hospital accommodates the institute's training animals registered at the LDC database. On average, 4-6 cattle are available for training – cows, 2-4 sheep and 2-4 goats, 2 horses. The institute is engaged in regrooving the herd, so students have access to animals of different ages in different physiological states.

For the operation of staff there is a room for care of milking equipment, a kitchen, various warehouses, a room for short-term storage of feed and bedding (35.90m2). For animals and staff, students, a spacious hallway with adequate flooring (164.7 m2) ensures safe and convenient movement and operation. As a result of the operation of the hospital, manure is accumulated in a shed (35.39m2) in a special container and removed in accordance with the contract.

M and K corpuses

LLU Veterinary Clinic (hereinafter – LLU VK) is located in: M corpus – Small Animal Clinic, in corpus K

– Horse Clinic. The main activity of the LLU VK is clinical training of VMF students, which is implemented by managing a modern material and technical base and providing veterinary medical care to animals belonging to natural and legal persons – dogs, cats, horses, exotic and farm animals. In 2020, 8,392 patients were provided with veterinary care. Outpatient, inpatient and surgical veterinary care, as well as laboratory and visual diagnostics and emergency care are provided in the clinic of small animals.

Outpatient care is provided in five animal clinical examination offices, as well as in the room of clinical manipulations. Animal registration data as well as clinical information in each care episode shall be documented and stored in the information system. Outpatient care includes physiotherapy. The physiotherapy department is built in corpus B in 4 rooms. For physiotherapy of animals, an underwater runway is available, as well as various elements – balls, mattresses, etc.

Hospitalized patients are placed in the hospital of the Small Animal Clinic. For inpatient care, there are 6 premises – intensive care hospital, cat inpatient, dog inpatient, exotic animal hospital, two infection insulators. Currently, small animal clinics can accommodate at least 30 small animals (dogs, cats) at a time. If necessary, the housing capacity may be increased by placing animal cages indoors. Intensive care in the hospital can provide oxygen therapy.

Surgical care of patients is provided in three operating rooms, as well as in the dental room. One of the operating halls is used for daily soft tissue surgery, the other for orthopaedic, laparoscopic and long, complex soft tissue surgeries, the third for the implementation of the study course "Operative Surgery". The surgical unit of the Clinic of Small Animals has inhalation anaesthetic equipment, artificial ventilation equipment, monitors of physiological functions, sets of laparoscopy and arthroscopy equipment, dental care equipment, c-arc surgical X-ray equipment, pneumatic drill for osteosynthesis operations, operating microscope, coagulator, as well as basic equipment – operating tables, instrument tables, operating lamps, animal heaters, hair suction devices, etc. One of the operating theatres has a video camera built into the operating lamp, the signal of which can be transmitted directly to a built-in monitor in the operating room, a seminar hall of the clinic or, via the Internet, to anywhere in the world, as well as to perform recordings of operations.

The small animal clinic is home to the LLU VK clinical laboratory, where basic laboratory tests are performed for all LLU NC patients, including horses and farm animals. The laboratory has at its disposal a blood gas and urine analyser of haematology, blood serum biochemistry, as well as basic equipment – microscopes, centrifuges, etc.

Visual diagnostic examinations are performed in 5 rooms – cardiology, ultrasound, endoscopy, radiography and computed tomography offices. For the cardiological examination of animals,

ultrasound equipment, a pacemaker, as well as a Holter monitor are used. For ultrasound examination of animals, mainly the abdominal cavity, three ultrasound equipment is used. For endoscopic examinations, the clinic has a tower with probes for bronchoscopic and gastroscopic examination, as well as a mobile endoscope with tools for rhinoscopy, otoscopy and cystoscopy. X-ray equipment and computed tomography are available for X-ray examination of animals.

On the 2nd floor of the M corpus there is a seminar hall, work offices for veterinarians and clinic administration.

The Horse Clinic also provides outpatient, inpatient and surgical veterinary care, as well as laboratory and visual diagnostics and emergency care. Outpatient care of patients of the horse clinic is carried out in the clinical examination room – looms. 18 boxes are available for hospitalization of horses – 2 intensive care boxes, 4 days inpatient boxes, 2 boxes for infection isolation, 10 regular veterinary care boxes. There are 4 walking paddocks in the VMF area opposite block K. A project is being prepared for the construction of a shed to increase hospitalization capacity for the Horse Clinic. The horse clinic has two operating halls to provide patients with surgical care. Operating rooms are equipped with telfers for erecting and removing horses from the operating table, operating table, inhalation anaesthetic equipment with built-in physiological function monitor and artificial breathing equipment, devices and tool kit for horse arthroscopy, operating lamps (one of which has a built-in camera with broadcasting capability), surveillance cameras for horse wake-up boxing. From the visual diagnostic equipment in the Horse Clinic there are three X-ray equipment, ultrasound equipment, two endoscopy equipment with three probes for bronchoscopic and gastroscopic examination of horses, Holter monitor etc.

Care and emergency care of patients hospitalized by the LLU VK is provided 24 hours a day.

The infrastructure and material and technical base of the LLU VK is available to students and teaching staff in the daily training process, because the training of VMF students in the LLU VK takes place in 2 different forms – practical classes and internships. LLU VK conducts practical classes in the following subjects: "Clinical and laboratory diagnostics I and II" "Operative surgery I and II", "Small animal surgery", "Surgery of large animals", "Internal diseases of small animals I and II", "Anaesthesiology and emergency assistance", "Radiology II". The following practices are implemented in the LLU VK – "Clinical Practice II" and "Clinical Rotation II and III". In addition, students, in coordination with the staff of the clinic, individually visit the LLU VK and collect information, conduct an examination of the animals (accompanied by a veterinarian) for the individual tasks included in the study process in different study courses, for example, in clinical and epidemiological cases.

Most of the veterinarians working at the LLU VK are also teaching staff at the VMF institutes.

Corpus C

In the context of ERDF project No. 1.1.1.4/17/I/003 "Research of LLU and scientific institutions under its supervision, within the framework of the agreement No. 5.1.-9.1/2016/LLU/6 on "Construction works for the establishment of an experimental animal centre at Kr. Helmana Street 8, Jelgava" concluded on 5 April 2019, was completed in January 2021. Until then, the premises of corpus C were as follows.

"Laboratory of Artificial Insemination" under the responsibility of the Clinical Institute - seminar, practice room with area 54.6 m2. Used for practical classes in the subject "Reproduction of livestock I,II", "Andrology and artificial insemination", "Obstetrics and gynaecology", animal sperm examinations, practical classes for students of the Faculty of Agriculture, as well as for the development of scientific projects.

For the purpose of work, the laboratory is equipped with hardware and tools. For example, various microscopes: laboratory Nikon E100 with heated table MATS-U505S, microscope E-200 Nikon with camera and computer, microscope binocular 4 obj. Promolab 4G, microscope binocular Biostar B3 with heated table, microscope Leica DM 50, microscope contrast phase MBL with HT50 video camera. For the performance of training and scientific work, a sperm analyser for all species of animals MINITUBE is used with a computer, thermostat 100-200L for tissue culture and microbiological cultivation.

The laboratory includes an insemination room - (48.6m2) - a specific room, equipped with a protective barrier and an industrially manufactured phantom boar for sperm removal, used for practical training of students or scientific projects.

In connection with the levelling house, next to it is the training animal of the Clinical Institute – a pig house, where training animals - breeding boars - were housed during the training process. For the purpose of training animals, a procurement from a certified pig house is carried out, the animals are trained and cared for by auxiliary staff of the Clinical Institute.

Until the rebuilding (April 2019) in Corpus C there was a housing for experimental animals (area 32.80 m2) in which animals of different species (pigs, goats, rabbits, birds) were housed, according to the needs to reform the type of animal parking places according to the species, age group, etc, considering welfare requirements for the purposes of development of the projects, doctoral thesis. These include long-term cooperation between the LLU and the Doctors safe train Foundation, The Institute provides delivery and maintenance of experimental animals, while the Veterinary Clinic of the University of Latvia provides a block of operating room with professional veterinary staff, etc., within the framework of the RSU pilot project "Improvement of medical skills for medical, veterinary students, residents, doctors and veterinarians to improve the quality of medical work" (from 20.11.2014 and continues).

The room with built-in volleys, with an area of 32.76 m2 (in addition to a specially built dog walking area 60m2) was used for housing training animals – dogs, to use them in the practical training of students, as well as in the development of doctoral thesis. Training (experimental) animals – beagle dogs were purchased from a certified experimental animal - beagle farm (In France), and their use is supervised by the Food and Veterinary Service.

From 2014 to March 2019, the Experimental Animal Farm of Rīga Stradiņš University (total area 110 m2) was built and operated in the building due to the lease agreement.

Until the start of the rebuilding, warehouse premises (Clinical Institute, Preclinical Institute), VMF Small Animal Shelter were located in the block.

Corpus D

Intensively, the premises of corpus D for the study process began to be used from 2016 after its renovation. Within corpus D Centre for Comparative Pathology, two Bacteriology, Mycology, Virology (BMV) training laboratories (8 and 12 places) and the Centre for Molecular Comparative Pathology all study courses related to pathology are held, for which an appropriate material technical base has been created, which includes two necropsy halls, two storage rooms, a freezer, chiller rooms, a tissue cutting room, two changing rooms with a shower and individual cabinets, a histology laboratory room, a consultation room and a training microscopy room.

Histological preparations are available for student training and independent studies, which are prepared in the laboratory of the Centre of Comparative Pathology with professional equipment (tissue processor Leica ASP 200S, draugger cabinet Flores Valles, paraffin tables Medite and Leica EG 1160, microtom Leica RM 2255, automatic painter Tissue Stainer Medite and pH meter 3510-pH,

Meter Jenway). In this laboratory, samples can be dyed with various classical (routine) histology dyeing methods, as well as performing histochemistry and immunohistochemistry dyeing connected to the same common network, is used for microscopic examination of histological preparations. The NIKON Eclipse Ci microscope with a digital camera and high-resolution capability ensured the remote study process in histological sample analysis.

Students participate in the preparation of histological samples before dyeing, using the Vogel table, which is equipped with ventilation, wide lighting, formalin collection tank and sewerage, placed at the sectional hall in the auxiliary room. The procedure of cutting the histological preparation is convenient and complies with biosecurity norms.

In the laboratory, researchers and students in the field of clinical pathology can use a cytocentriphuge to conduct scientific research, which helps to prepare high-quality samples of aspirate and is irreplaceable in cell culture studies.

In the sectional hall block, students with the guidance of lecturers perform sections of different animal species using section tables Kugel medical with built-in ventilation and sewerage. The Schneider Electric XAC-B06 telfer is used to move the corpse of a large size animal. Precise weight measurements during sections are assisted by various electronic scales (e.g. ADE Ms-2200). Thanks to electric bone saws (KOLBE foodtec K220, Tischsage and Oscillating Autopsy Saw HB-740), students can master central nervous system and bone pathologies. The sectional hall block is equipped with laminar (Hera Safe KS, Thermo scientific KS 12) to work with carcinogenic materials.

The Centre of Comparative Pathology takes place in the training of 2nd, 3rd, 4th, 5th and 6th year students with pathology-related subjects and other clinically relevant subjects (e.g. within the scope of the reproduction and surgery course of large animals). Thanks to the fact that the premises are equipped with modern equipment, the study process in undergraduate and doctoral programmes is qualitatively ensured.

In D-corpus Bacteriology, Mycology, Virology (BMV) training laboratory (8 and 12 places), faculty and technical staff offices are located. The premises are equipped with Leica DM500 student microscopes and lecturer microscope DM750 microscope with camera and auditorium screen.

Corpus E

From the beginning of the reporting period - from 2013 to 2016, practical classes of pathological anatomical sections were held in the large section hall of corpus E (up to 22 workplaces), and practical classes of anatomical works in two small halls (up to 8 workplaces each). The premises of Corpus E were used only to ensure the anatomy study process from 2016 after the renovation of block D and the transfer of the pathological-anatomical section hall to the renovated D corpus.

Since 2016, corpus E is also called anatomicum, as it undergoes only the study and scientific work of study courses related to anatomy, for which an appropriate material technical base has been created: in 2017, roofing was restored and insulated, a new ventilation (adjustable air supply, as well as upper and lower hood) system was built.

When entering the Anatomicum (corpus E), there are lockers in the hallway for storing students' clothes and personal belongings. In the block there is a lecturer's office and a common lounge, a room for technical staff, as well as generally accessible WC and shower Before entering the anatomical theatre hall, students put on only gowns, caps and rubber shoes for anatomical theatre rooms, which are disinfected in disinfection mats placed near the door. In the largest of the halls for the training of students, 6-section tables are used (double-inclined surface for collecting and draining liquids). Separately adjustable lower draggle ventilation is attached to one of the tables. The study process also takes place in two small halls, each with one and two section tables with

lower drag ventilation, respectively. Sinks, warm water, soap, disinfectants, eye protection flushing systems, disposable paper towels are available in each room. Students are provided with easy-to-wash, waterproof aprons and sleeves for work in the anatomical rooms. Each room has a germicidal lamp for disinfection.

The anatomical association room is equipped with three deep closed pools for maceration and storage of preparations, as well as a shelf system for long-keeping preparations. From the technical premises there is also a closed storage room for storing technical materials and chemical means, as well as a storage room for biological materials(12 m 2), where a temperature of +4°C degrees is maintained. A horizontal freezer (-22° C) is also used for the storage and accumulation of anatomical preparations, for the long-term storage of the material to ensure the study process at any stage of it.

Corpus F

In the premises of corpus F there are two auditoriums (54 and 98 places), Parasitology laboratory and preparation room, Serology laboratory, microbiology material preparation room, two seminar rooms.

In 2014, the premises for the preparation of microbiological materials was equipped with anaerobic workstation, so it is possible to manipulate microorganisms that require special cultivation conditions. The material-technical base is constantly updated by purchasing the necessary materials for the Institute, e.g. refrigerators, colony counters, pipettes and dispensers, shakers etc.

In 2013, the Clinical Institute took over and deployed the Radiology Laboratory (total area 58.80m2) in corpus F, which was arranged for the determination of radioactivity, and stationary equipment for the determination of radioactivity of various samples was located. Of which: for radiometry - multichannel gamma spectrometer with semiconductor detector; liquid scintillation counter Quantulus 1220. It makes it possible to determine the specific activity of Sr90 in surface water, soil, plants, foodstuffs using specific methods of radionuclide release. The laboratory has at its disposal a portable radiometer thermo for measuring the radiation level of the environment for the measurement of radioactive contamination of different surfaces. in 2020 the laboratory was reorganised.

Training farm "Kalnenieki".

The farm is located in Jelgava municipality Glūda parish and under the responsibility of clinical institute, farm area 120.60h, including arable land (83 ha was leased until 2017) and residential house, farm animal housing with auxiliary premises. In 2017, by rector's order No. 4.3.-13/58 arable land was transferred to LLU MPS "Pēterlauki". Farm animal housing is used for the institute's training for housing animals during the grazing season to relieve the large animal during the inpatient summer study break.

Veterinary unit MPS "Vecauce"

The veterinary block was built on the premises of the "Līgotne" of the PSP "VECAUCE" dairy cows at the premises of ERDF project No. 2010/0119/3DP/3.1.2.1.1. In order to improve the in-depth acquisition of practical skills of 4th and 5th year students of the LLU VMF, creating an opportunity and conditions for practical classes in the LLU MPS "Vecauce" cow complex "Līgotne" under the supervision of a farm veterinarian. In accordance with the training practice programme, 4th and 5th year VMF students are expected to perform clinical examination of livestock, diagnostics of diseases, provision of conditions of keeping, and participate in the medical treatment process under the guidance of a practicing veterinarian during the internship.

Two cow caesarean fixation looms with surgical lamps TruLight 3500, portable ultrasound for

examination of small and large animals, laboratory work - microscope Nikon Eclipse E100LED, centrifuge medical laboratories Human 4k, scales laboratory Humascale Plus, incubator Huma Therm equipment and tools are used to ensure training processes. There are working rooms with cabinets for tools and hardware storage, mobile tables for surgical instruments etc. For group trips there are dressing rooms for students and teachers with wardrobes, bathrooms. For seminars there is a room with 40 places and the possibility to use multimedia equipment.

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

Methodological and informative provision

One of the priorities of the Latvia University of Life Sciences and Technologies is to provide students, academic and scientific staff with modern information resources, including both academic and scientific literature, various study materials, databases, methodological instructions and consultations, provision of libraries, bibliographic and reference information services, etc. The main provider of information resources at the Latvia University of Life Sciences and Technologies is the Fundamental Library of the Latvia University of Life Sciences and Technologies (LLU FB). LLU FB is an accredited library of national significance and a member of the Latvian Association of Academic Libraries (LATABA), which provides users with the above-mentioned information resources.

The principles of operation of the Fundamental Library of the Latvia University of Life Sciences and Technologies are determined by its regulations (Regulations of the Fundamental Library of the Latvia University of Agriculture), which include general issues, goals and tasks, administration, rights and obligations, sources of funding and procedures for their use. See site-(https://llufb.llu.lv/en?destination=/lv&_exception_statuscode=404).

There are four departments to ensure the functions of the LLU FB: The Bibliographic Information Division, the Reference and Information Center, the Reader Services Division, and the UN FAO Depository Library.

LLU FB provides its activities, services and convenient communication through its website and its existing platforms (electronic catalog, information seekers, databases, information and methodological instructions, etc.) https://llufb.llu.lv/en

The use of LLU FB services is regulated by the LLU FB terms of use, which are easily available on the LLU FB website (https://llufb.llu.lv/en/general-information/how-become-library-user).

Suitability of the LLU Fundamental Library for the needs of students

The working hours of the LLU FB are adjusted to the needs of the main users of the library - students and lecturers. On weekdays, the library is open to users from 8.30 to 19.00, on Fridays -

from 8.30 to 17.00 The library is also open to users on the first Saturday of each month from 9 a.m. to 2 p.m. The working hours of the library reading rooms and the Reference and Information Center are extended until midnight during an individual study and examination session. The catalog and online databases are available all the time 24/7.

On-site for LLU FB users to easily obtain and use the desired industry information resources and information about it, as well as consultations there are available options: subscription(loan), subscription(loan) of study literature, reading room, reading room balcony, silent reading room, reference and information center. See the area size in the table below.

For the free provision of education and information to all persons, LLU FB has elements of environmental accessibility, which allows LLU FB to be easily used by people with disabilities.

Information about the reader service premises in the Fundamental Library of the Latvia University of Life Sciences and Technologies

Room Nr.	Room title	Area, m²
161.	Subscription(loan),	26,9
254.	Reading room	396
	Reading room balcony	223
255-1.	Silent reading room	34,3
255.	Reference and information center	57,6
76.	Subscription(loan) of study literature	49,3
Total		787,1

On March 1, 2016, the Subscription(loan) of the study literature started working in the new premises.

The reading room has comfortable and bright workspaces both in the hall and on the balcony. Internet and WI-FI are available. The reading room also has a seating area with comfortable sofas. There is a separate quiet reading room where users can focus more on their work. The reference and information center have desktop computers and the services of a qualified consultant.

LLU FB has available books in the field of veterinary medicine both for home distribution and a wide range of books in the field of Veterinary Medicine, which are available in the reading room of LLU FB. In the period from 2013 to 2020, 217 books and dissertations are available at the LLU FB in various subfields of veterinary medicine (e.g., veterinary anatomy, pathology, internal diseases of farm animals, horses and pets, reproduction and surgery and related subfields).

LLU FB provides access to electronic journals in various databases. The EBSCO host database contains 150 electronic journals and collections of articles in the field of Veterinary Medicine. There are also 60 journals available electronically in Science direct and 29 in the Wily online Library databases on various fields of the Veterinary Medicine industry.

Services offered by the Fundamental Library of the Latvia University of Life Sciences and Technologies

The following free services are available at LLU FB:

1. use of a computer with internet connection and wireless internet,
2. 24/7 use of online databases created, subscribed and free of charge by the library,
3. issuing / receiving books, serials and other documents,
4. training in working with full-text and bibliographic databases, computer and Internet consultations,
5. lessons for LLU teaching staff, including online information retrieval, creation of personal accounts, adding publications from LLU teaching staff and researcher publications database to LLU IS personal account, Mendeley, researcher identification number ORCID and Research ID creation, etc.,
6. classes for doctoral students, master students, undergraduate students, incl. English,
7. support materials for each target audience (scientists, students, other users) and sending them on request,
8. conducting inquiries and consultations on the library and its possibilities of use,
9. editing bibliographies, sending examples of descriptions by e-mail upon request,
10. Possibilities to use Autodesk EDU Master suite 2018, CorelDRAW X7, SPSS Statistics v21, VISIO 2013,
11. creation of exhibitions by order.

The following paid services are available at LLU FB:

1. copying (color, black and white),
2. printing (color, black and white),
3. scanning,
4. execution of written thematic references,
5. SBA and SSBA services (postal costs to be covered),
6. delivery of copies of documents (according to suppliers' pricing),
7. spiral binding.

LLU FB offers the following e-services:

1. use of electronic catalog 24/7,
2. electronic book reservation, 24/7 extension,
3. use of PRIMO DISCOVERY,
4. 24/7 use of the library's online, subscribed and free online databases (both full-text and bibliographic), the possibility to use the "Ask the Librarian" service in the EBSCO database,
5. Possibilities to connect to the subscribed e-journal and e-book databases outside the LLU network using the EZproxy and LLU IS user account 24/7,
6. use of the Mendeley scientific information search program,
7. opportunities to use other online information resources from the library's website,

Available databases in the field of veterinary medicine, statistics of their use

The Fundamental Library of the Latvia University of Life Sciences and Technologies offers users various online databases and databases on other media. The library has purchased the search software PRIMO DISCOVERY, which provides simultaneous search in subscribed and open access online databases, the electronic Joint Catalog of libraries of national significance, databases created by LLU FB (publications of LLU lecturers and researchers, LLU master's theses, etc.). By registering with the LLU IS user account, you can view your user account and extend the deadlines for issues, publications, order issues publications, access full texts in subscribed online databases, save your search results. "Help to find information PRIMO" (only in latvian) is available on the library's

website. Information and guidance on information resources suitable for the veterinary medicine industry are also available, e.g. informative booklet https://llufb.llu.lv/dokumenti/Subscribed_E-journals_E-books_and_databases.pdf

Access to online databases is provided 24/7 in the LLU network, as well as to authorized users outside the LLU network, using the EZproxy and LLU IS user accounts.

Before offering databases to users, they are analyzed for search capabilities, thematic coverage, chronological coverage, and access options. Information about databases is prepared and their descriptions are posted on the LLU FB website (https://llufb.llu.lv/en/catalogues-and-databases).

LLU FB users have the opportunity to search for information in Veterinary Medicine and related fields in the following subscribed foreign and Latvian online databases:

- CAB Abstracts,
- CRC Press eBooks
- EBSCO eBook Academic Collection database, which covers a wide range of multidisciplinary topics and contains more than 228515 e-books,
- EBSCO host databases Academic Search Complete, MasterFILE Premier and others
- ScienceDirect Journals,
- Scopus,
- SciVal,
- Web of Science,
- Wiley Online Journals,
- *Lursoft.*

Use of LLU FB subscribed foreign databases in 2018 and 2020.

Database	**Number of connection sessions**		**Number of searches**	
	Year 2018	Year 2020	Year 2018	Year 2020
CAB Abstracts	1806	2590	5434	7820
EBSCO	31725	44174	100300	130695
EBSCO e-book	4538	6568	14552	19364
Science Direct Journal	21212	38118	53634	50905
Scopus	7451	18343	13586	23859
Web of Science	3733	5122	6822	24503
Wiley Online Journals	2284	7592	6658	10439

Excluding examples of the use of databases in the field of veterinary medicine such as the CABI base of the Animal Health and Production Compendium in 2020, 1253 visits were made.

In cooperation with the Cultural Information System Center, various online databases are also regularly offered for information during the trial period.

Readers are also offered databases created by the employees of the LLU Fundamental Library:

- Publications of lecturers and researchers of the Latvia University of Life Sciences and Technologies,
- Doctoral theses defended at the Latvia University of Life Sciences and Technologies, ”
- Conference materials of the Latvia University of Life Sciences and Technologies”,
- Publications of patents of lecturers and researchers of the Latvia University of Life Sciences and Technologies”,
- Publications about the Latvia University of Life Sciences and Technologies”.

LLU FB as the deposit library of the Food and Agriculture Organization of the United Nations and the AGRIS National Center participates in the development of the international AGRIS database.

Information Center of the Faculty of Veterinary Medicine

In addition to the LLU Fundamental Library, the Faculty of Veterinary Medicine (VMF) has a local Information Center. The information center is open to users on weekdays from 8.15-17.00. The information center has 2 employees.

In the VMF Information Center as well as in the other premises of VMF (wireless internet connection is available) and outside them the LLU centrally available catalogs and online databases for students and lecturers are available without restrictions 24 hours a day. Databases are available in the LLU network, as well as for users outside the LLU network, using the LLU IS user account.

In the VMF Information Center there is access to books, journals, conference proceedings, as well as e-books, e-journals and articles in various databases - Veterinary Articles, Scopus, EBSCOhost, Ebooks Colllection, Wiley Online Library, ScienceDirect. The information center has comfortable workplaces in both the hall and the balcony. There are 4 stationary computers available - 2 computers in the room, 2 in the balcony. There are 6 workplaces on the balcony without computers. There are seating areas with 2 comfortable sofas and an ottoman.

The following are available in the information center:

Paid services:

- - Document copying;
- - Document printing;
- - Document scanning;
- - Collection of study academic debt settlement fee;

Free services:

- Binding of documents if the student brings auxiliary materials;
- Issuing and handing over books;
- Use of a computer with an Internet connection and wireless Internet;
- Information services;

In the autumn of 2006, the VMF Information Center was moved to new, spacious premises.

Information about the information center service premises

Room nr.	Title of room	Area, m^2
112	Reference and information center, subscription to study literature	72.7

	Workspace at computers	43.7
	Reading room balcony	55.1
	Toilet with anteroom	5.2
	Anteroom with warehouse	5.3
	Total	182

The VMF Information Center has about 7,000 books sorted by ID classifier. The latest literature is on a separate, easily accessible, and open shelf.

Information sources that are not available in the VMF Information Center and the LLU fundamental library are available by using the Interlibrary Loan (SBA), e-mail: llufbsba@llu.lv. It is also possible to order books and other documents located in other Latvian libraries, as well as articles from foreign libraries or document delivery centers.

The book and magazine fund of the VMF Information Center is replenished thanks to donations and gifts from individuals and various institutions, as well as from the VMF and LLU budget. During the reporting period, the number of books has increased by 197 books. The most important are the latest 88 books in English on various topics of the veterinary medicine subbranch, which significantly allow to expand the acquisition of information in the study process with modern, international, and fundamental information. However, these books are in one or two copies and are available for students to use in the reading room. We also appreciate the addition of 18 copies of chemistry books to the VMF Information Center, the content of which is adapted to the needs of veterinary medicine study courses and 30 copies of Practical Anatomy of Pets and 30 Fundamentals of Veterinary Histology, which significantly improves the availability of information for students.

In the reading room - books are arranged on shelves according to UDC indices:

Topic of books	UDK	Amount
Veterinary medicine	619	5054
Zoology	59	111
Animal sciences	636	669
Biology	57	161
Hemistry	54	75
Biohemistry	577.1	93
Botanics	58	36
Anthropology, human anatomy and physiology	5A2	85
Beekeeping	638	23

Fish farming	639		57
Food Microbiology	6R8		49
Physics	53		17
Mathematics	51		19
Economics	33		20
Medicine	61		20
Psychology	159.9		16
Computers	6R5.83		11
Nature protection	52		3
Methodological Indicators and Congress Materials	087		421
Dictionaries			92

The collections of the VMF Information Center are supplemented in accordance with the recommendations of the teaching staff on the most topical topics in the field.

Procedure for replenishing the collections of the Fundamental Library of the Latvia University of Life sciences and Technologies and the procedure and possibilities for subscribing to databases

The collection of LLU FB is mainly compiled in accordance with the recommendation of the academic staff. A "Book Request Form" is available on the library's website. Taking into account the requests of lecturers and other library users, LLU FB purchases the requested expenses. A “Collection Acquisition Policy” has also been developed for the LLU FB, which determines that the main priority in the acquisition of the collection is for the study programs and research directions of the Latvia University of Life sciences and Technologies. In accordance with the Law on Compulsory Copies, the LLU FB, as a library of national significance, receives one copy of each printed work and electronic publication in the fields of the LLU profile.

In cooperation with the Cultural Information Systems Center, LLU FB offers its users to try many databases available in the world. LLU FB employees carefully evaluate the statistics of the use of both subscribed and trial databases. As a result, taking into account the test statistics and based on the recommendations of the lecturers, a decision is made which database the library subscribes to.

The local VMF information center literature collection is compiled by including books and periodicals requested and written by VMF academic and scientific staff.

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

The process of attracting and employing LLU teaching staff (incl. Announcing vacancies, hiring, election procedure, etc.) is regulated. The regulations are available on the LLU website: https://www.llu.lv/sites/default/files/2021-06/Akad_amati_2021.pdf - in latvian)

At the Latvia University of Life sciences and Technologies, the number of positions of professors, associate professors and assistant professors in the relevant sub-sectors of science, including Veterinary Medicine, is determined by the Senate in accordance with the LLU development strategy. The number of lecturer and assistant positions is determined in accordance with the study program and the number of students, on the proposal of the dean of the Veterinary faculty, on the proposal of the vice-rector of studies and financial possibilities. The number of leading researchers and researcher positions is determined in accordance with the research needs and financial possibilities of the structural units upon the proposal of the dean of the Veterinary faculty and approved by the Vice-Rector for Science.

If the LLU has a vacant or temporarily vacant academic position, the LLU Senate may decide not to announce a competition upon the proposal of the faculty council. In this case, the Rector may hire a visiting professor, associate visiting professor, visiting associate professor, guest lecturer or visiting assistant for a period of up to two years.

LLU has the opportunity to attract and conclude employment contracts with foreign candidates for guest lecturer positions. The attraction of foreign lecturers to study and / or scientific work is determined by the Rector's order “Procedure for Admission of Foreign Visiting Lecturers”. Based on the order, the specific faculty examines the quality of the foreign candidate and, in accordance with the competencies of the guest lecturer, determines responsibilities in the academic, professional and scientific fields (lectures, practical classes, participation in projects, counseling of doctoral students, etc.).

Occupation of an academic position at LLU takes place in accordance with the procedure of an open competition, which is specified in the regulations of the Latvia University of Life sciences and Technologies.

The general requirements for applicants for academic positions are determined by the Law on Higher Education Institutions of the Republic of Latvia.

Requirements for Applicants for Academic Positions are regulated in the “Regulation about academic positions of the Latvia University of Life sciences and Technologies”, which determine the scientific or academic degree and length of service required for the specific position at the Latvia University of Life sciences and Technologies.

The common requirements for all applicants for academic positions are:

- knowledge of the state language in accordance with the requirements of regulatory enactments;
- knowledge of foreign languages at the level necessary for the performance of the duties of the academic position (including conducting classes in these languages);
- continuous improvement of academic and scientific qualification.

Procedure for election of academic positions

The procedure for selection, election and recruitment of academic positions is determined by the Regulations on Academic Positions of the Latvia University of Life sciences and Technologies approved by the Senate of the Latvia University of Life sciences and Technologies. Based on the received proposals of the academic structural units regarding the vacant academic positions, the LLU Personnel Department prepares a draft announcement and submits it to the LLU Academic Personnel and Structural Policy Commission for consideration (hereinafter - the Commission). After the decision of the meeting of the Commission, the Personnel Department prepares a draft on the vacant academic positions and submits it to the Senate of the Latvia University of Life sciences and Technologies for approval. After the decision of the Senate of the Latvia University of Life sciences and Technologies, the Personnel Department announces an open competition for vacant academic positions by publishing an advertisement in the newspaper "Latvijas Vēstnesis", on the website of the Latvia University of Life sciences and Technologies. Candidates for the position apply for the specific position by submitting the documents required in the competition. After the formal compliance check of the application documents, they are passed on to the relevant structure (professors' council, faculty council, council of scientific institutions) for qualitative evaluation and organization of elections.

Elections of candidates for academic and scientific positions are held by secret ballot:

- in the position of professor and associate professor - in the relevant councils of professors not later than within four months from the date of announcement of the competition;
- in the position of assistant professor, leading researcher, researcher, lecturer, assistant and research assistant - in the faculty councils not later than within three months from the day of announcing the competition;
- in the position of a leading researcher, researcher and scientific assistant - in the scientific councils of scientific institutes not later than within two months from the day of announcement of the competition.

The Rector signs an employment contract with the person elected to the academic position for the term of election.

Employment

The individual academic work of the academic staff is planned in each study year in accordance with the “Regulations for Calculation of Academic Work of the Latvia University of Life sciences and Technologies” and the Rector's Order “On Planning, Accounting and Control of Individual teaching staff work load in the Study Year”.

Academic working hours for the position for full-time work per year:

Position	Hours, h

Professor	900
Asociated professor	920
Assistant profesor	940
Lecturer	960
Asistant	960

Remuneration for the academic position is determined on the basis of the regulations of the Cabinet of Ministers Regulations on Teachers Remuneration: - https://likumi.lv/ta/id/283667-pedagogu-darba-samaksas-noteikumi and the Rector's Order“ On Teachers' Remuneration ”.

Professional development of the academic staff

The professional development of the academic staff includes both the acquisition of appropriate professional development programs and the exchange of experience and participation in conferences and seminars, which is confirmed by the documents issued at the end of them.

Every six years, academic staff are entitled to paid academic leave of six calendar months for scientific research or scientific work outside their place of work.

The procedure for professional development is determined by the Regulations of the Cabinet of Ministers On the Education and Professional Qualification of Teachers and the Procedure for Improving the Professional Competence of Teachers (https://likumi.lv/ta/id/301572-noteikumi-par-pedagogiem-nepieciesamo-izglitibu-un-profesionalo-kvalifikaciju-un-pedagogu-profesionalas-kompetences-pilnveides-kartibu; in Latvian). These regulations stipulate that the pedagogical qualification required for the teaching staff of a higher education institution must be acquired in further education in professional development programs on innovations in the higher education system, higher education didactics or educational work management in the amount of 160 academic hours (including at least 60 contact hours) until the end of the academic term. LLU has established a professional development program for academic staff "Innovations in the didactics of higher education institutions". The aim of the program is to improve the knowledge of higher education staff in the didactics of higher education and the possibilities of their use in pedagogical activities. After mastering this program, a certificate is issued.

The program implemented by LLU for the professional development of academic staff “Innovations in the didactics of higher education” is positively evaluated, and it is regularly supplemented with topical topics in various fields (pedagogy, communication, computer skills, use of various software, etc.). Also, courses are included according to the wishes of the academic and scientific staff on request.

3.5. Specify whether there are common procedures for ensuring the qualification of the academic staff members and the work quality in place and provide the respective assessment thereof. Specify the options for all teaching staff members to improve their qualification (including the information on the involvement of the teaching staff in

different activities, the incentives for their involvement, etc.). Provide the respective examples and specify the way the added value of the possibilities used for the implementation of the study process and the improvement of the study quality is evaluated.

The conformity of the qualification of employees, the conditions for the improvement of qualifications and regular assessment for specific categories of academic and scientific positions is determined by the regulation of the LLU "Regulations of the Latvian University of Life Sciences and Technologies on Academic Positions", the Law on Higher Education Institutions, and during the transition period Cabinet Regulation No. 391 "Procedures for the Assessment of Scientific and Pedagogical Qualifications of a Candidate for the Position of Professor and Associate Professor". Henceforth, the conformity of the qualification and regular assessment for specific academic and scientific positions will be carried out in accordance with Cabinet Regulation No. 129 "Procedures for the Evaluation of The Scientific and Pedagogical Qualifications or The Results of the Work of Artistic Creation of a Professor or Associate Professor and a Professor or Associate Professor in The Position".

On the basis of the guidance of the abovementioned regulatory documents, during the reference period the qualification of a professor or associate professor of the LLU (performance of scientific activity, performance of pedagogical activity, organisational activity) was assessed by the council of professors in the field and elected to the position for a period of six years. After the expiry of the term, a new competition for the post was announced. From now on, the election of professors and associate professors to office will not be of limited term, but the results of the work and conformity with the qualification will be reassessed not less than once every six years. As well as the university will have to evaluate the performance of the work of a professor or associate professor at least once every two years, and according to the work of the professor or associate professor, the assessment of the performance of the professor or associate professor has the right to encourage the council of professors in the field to assess the conformity of the scientific and pedagogical qualifications of the professor or associate professor with the position before the end of the term.

The scientific and pedagogical qualification of an assistant professor, lecturer or assistant is evaluated by the faculty council and elected for six years.

Based on the implementation of the procedures indicated above, the Faculty of Veterinary Medicine provides appropriate qualifications for academic and scientific staff whose qualifications are regularly updated.

The professional development programme for higher education teachers (160h) "Innovations in university didactics" implemented by the LLU is freely available to academic staff of the Faculty of Veterinary Medicine for the improvement of regular professional development. Its aim is to improve the experience in didactics of the higher education institution and the possibilities of its use in pedagogical activities, and the tasks are to promote the evaluation of theoretical knowledge and practical activities and the introduction of innovations in pedagogical work; to improve knowledge of the strategy for the development of higher education in Latvia in the EU context; to encourage continuous professional development in the didactics of the higher education institution. More information is available at https://mans.llu.lv/lv/darbiniekiem/metodiskais-darbs-un-macibspeku-kvalifikacija -in Latvian

One of the most visible tools for the assessment and promotion of the qualification of academic staff in the LLU is the motivation system for teaching staff introduced since 2017. On the basis of

the task set by the Development Strategy of the University of Latvia for 2015-2022 to update the system of motivation of academic staff and the decision of the Study Council on 07.02.2017, Rector's Order No. 4.3-8/10 "On implementation of the motivation system for academic staff" was issued. In the future, the rector regularly issues an order in December each year "On the collection of data on the motivation system of academic staff for the previous calendar year". For example, 02.12.2020. Rector's Order No. 4.3-8/87 "On compilation of academic staff motivation system data for 2020" was issued.

Within the framework of the motivation system, the quality of the annual work of the teaching staff, further training and other activities are evaluated. The rector's order defines 16 criteria included in the motivation system and divided into the following sections: student assessment; preparation of teaching aids; study process; organizational work; professional development; scientific work.

Within the framework of the motivation system, each teaching staff member enters data on the implemented further training measures into his or her IS account of the LLU and attaches supporting documents, additionally considering the activities indicated by the head of the unit (dean of the faculty).

As one of the most important indicators of the quality of the study work, we consider the surveys completed by students, where the student voluntarily at the end of each semester, and anonymously fills in a questionnaire available on the E-studies website of the University of Latvia for each study course and teaching staff. In the questionnaire, the student must evaluate on a 5-point scale: speaking skills of the teaching staff; the teaching methods used; cooperation of the teaching staff with students; access to advice; quality and types of study materials; the effectiveness of test work; content of study courses; knowledge acquired at the end of the course. Student assessment is available to the teaching staff themselves, heads of structural units and provides an opportunity to analyse the results of the questionnaire, improve the quality of the study work and follow the changes (progress or regression) in time. We appreciate the assessment given by students about the quality of the teaching staffs' work, but it should be noted that in some cases we would like a larger number of respondents to make the results of the surveys more representative.

For each of the motivation criteria, points are awarded according to rector's order No. 4.3-8/10and, based on the total number of points, a supplement to the monthly salary for the next school year is calculated.

In general, the academic staff of the Faculty of Veterinary Medicine are satisfied with the motivation system and positively appreciate that the improvement of qualifications and various activities aimed at improving the study process are evaluated and additionally rewarded.

It should be noted that the dense workload often does not encourage the activity of teaching staff in further training.

In order to ensure and improve the quality of work during the reporting period, the provision of information resources of the LLU Fundametal Library available to teaching staff and students, also outside the LLU network, has significantly improved through the IS user account of the LLU.

In order to control and improve the quality of academic work, the LLU operates the procedures for the hospitalization of lectures and practical works led by teaching staff, practices. The hospitalization provides for the possibility that the director of the study programme, the directors of the institute or other teaching staff of the LLU may join the classes conducted by colleagues, evaluate their quality, and then provide their opinions and proposals for improving the quality of work, if necessary.

Academic staff are offered a wide range of opportunities for upskilling. LLU ensures and supports the participation of personnel in various industry conferences and seminars at local and international level, where in certain cases all or part of the costs related to further training are covered. Teaching staff are also provided with the opportunity to participate actively in ERASMUS plus activities (exchange of experience, lectures abroad, implementation of Erasmus projects), which are regularly used by veterinary teaching staff. For example, during the reference period, 3 teaching staff travelled from the Faculty of Veterinary Medicine to various Erasmus cooperation universities and university veterinary clinics; 11 teaching staff in 2015; 8 teaching staff in 2016; 6 teaching staff in 2017; 4 teaching staff in 2018; 10 teaching staff in 2019; In 2020, 2 teaching staff. The acquired experience is used to improve the quality of the study process and both the exchange of experience itself and the assessment of the study course (in the form of a student survey) are included in the motivation system of the teaching staff of the LLU.

During the reference period, academic staff at the Faculty of Veterinary Medicine have significantly built their qualifications through increased English language learning. English language training during the reporting period was available to employees: 32 h English language development courses organised by the Language Centre of the LLU; English language training organised by the Faculty of Veterinary Medicine, aimed at improving the quality of professional colloquial language; Within the framework of ESF project No.8.2.2.0/18/A/014, group English classes 120h and individual training 32 h.

As of 1 January 2019, LLU implements ESF project No. 8.2.2.0/18/A/014 "Improvement of academic staff of LLU" (period 01.01.2019 – 30.06.2022.)

During the project period, each of the study directions is:

- internships of **academic staff with industry are ensured** in order to promote closer linkage of the study process with the economy and to increase the competence of teaching staff;
- increased level of English **language proficiency** of academic staff in order to promote the development of new study programmes, attracting international students and increasing professional performance;
- improved **leadership, communication and communication skills of academic staff** to ensure a more efficient and modern study process, performance and quality of work performance (specialised training);
- doctoral students are assigned to **the study fields in order** to promote the implementation of human resources recovery and succession plans;
- foreign academic staff are **attracted to study directions** in order to more effectively ensure the achievement of the basic objectives of the LLU and to approach the vision faster - to become one of the leading sciences and technology universities of the Baltic Sea region.

The Faculty of Veterinary Medicine has attracted two doctoral students and one foreign visiting professor in the field of agricultural gynaecology and reproduction (with whom we continue cooperation after the project) within the framework of the project. 3 employees (3 continuing the traineeships) have carried out traineeships with entrepreneurs. In this project, 12 teaching staff and specialised training "Modern and effective communication and cooperation tools in it environment" have also been carried out by 12 teaching staff.

The Faculty of Veterinary Medicine supports the upskilling of teaching staff abroad through internships and residency programmes recognised by European higher veterinary education organisations. During the reporting period, 5 faculty members of the Faculty of Veterinary Medicine have spent 12-month internships abroad (Belgium), of which there are currently two active employment relationships at the Faculty of Veterinary Medicine (representing the fields of equine

and ruminant medicine) and an additional one is attracted to the fact that a volunteer visiting lecturer is managing specific topics in the field of clinical diagnosis.

Regular improvement of the professional qualifications of practising veterinarians plays an important role in veterinary education. LLU and LLU Veterinary Clinic provide financial support for attending high-class professional courses for teaching staff working at the LLU veterinary clinic and implementing academic work in clinical subjects. For example, the European School for Advanced Veterinary Studies (https://www.esavs.eu/) courses were taught during the reference period: 2016 in the field of radiology (1 teaching staff); In 2018, in the field of emergency and anaesthesiology (1 teaching staff) and Arthroscopy (1 teaching staff); In 2020, in the field of cardiology (1 teaching staff). As well as other paid professional qualification courses: in 2014 computed tomography courses (1 teaching staff); In 2019, Neurological diagnostic courses (1 faculty), 2019 ultrasound diagnostic courses (2 teaching staff); In 2020 radiation safety courses (10 teaching staff and clinic staff), practical training in anaesthesiology (2 teaching staff). The acquired professional skills are used to improve the content of study courses and the quality of clinical practices, as well as the acquisition of courses and the assessment of a study course or internship (in the form of a student survey) are included in the motivation system of the teaching staff of the LLU.

It should be noted that the academic staff of the Faculty of Veterinary Medicine, in parallel with other refresher activities, regularly attend and speak at the international conference "Topicalities of Veterinary Medicine Science and Practice" organised by the Faculty of Veterinary Medicine every two years, as well as at the annual conference organised by the Latvian Veterinary Association.

In 2013, in cooperation with the Latvian University of Agriculture, the Veterinary Medicine Education Centre (VIC) ltd. was established for ensuring regular improvement of professional qualifications for both academic staff and students, as well as for those working in the professional profession, https://vicinfo.lv/ Ltd. - in Latvian. The MIP implements continuing vocational education by organising seminars, courses, practical classes in various veterinary medicine sub-areas. During the reporting period, the MIP organised on average at least one educational event per month, during the last year 2-3 webinars per month. Educational activities organised by the VIC always have a participation fee discount of 30% or 50% for academic staff and students, and some events are free of charge, thus ensuring active and regular upskilling of teaching staff.

During the reporting period, the improvement of the VMF infrastructure (establishment of the most modern training veterinary clinic in the Baltic region, renovation of the pathology centre) and equipping with modern equipment for both student training and scientific work, which is regularly updated, has made a significant contribution to ensuring the quality of work. Thus, allowing teaching staff to work and include modern training methods in the study process, including animal examination, disease diagnosis and treatment methods, as well as food safety control methods, etc.

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

In order to ensure a successful higher education environment for students of the Veterinary Medicine Study Program, the Faculty of Veterinary Medicine provide not only physical resources (LLU Fundamental Library and VMF Information Centre, LLU Veterinary Clinic (small animal, horse and livestock), properly equipped training laboratories, etc.), but also with the necessary human resources – teaching staff, technical and administrative staff, as well as leisure organisation structures and supportive personnel. Most teaching staff are simultaneously involved in research, administrative and support bodies, performing a relatively high academic workload (which are the main workload accounting hours at the university).

From the academic year 2015/2016, the academic workload of teaching staff is planned in accordance with the regulations for the calculation of academic work of the LLU and the rector's order regarding the accounting and control of the planning of the individual load of the teaching staff in the relevant academic year. The workload of the teaching staff involved in the implementation of the study programme is planned at the end of the previous academic year and is adjusted before each new study year, depending on the enrolment results and the number of students in senior courses. Lecturers plan their pedagogical workload according to the study programme of each semester and academic year.

In the implementation of the study field, a steady increase in the number of teaching staff posts (full-time equivalent (FTE)) can be observed during the reporting period. On 1st September 2013 it was 33.31 FTE and on 1st September 2014 already 36.41 FTE. In the 2015/2016 academic year, the VMF began to implement studies for international students (in English), which, despite the introduction of the workload calculation procedure of new lecturers introduced by the LLU, allowed to maintain the FTE at the level of previous years (35.49). Reorganization of the study process (creation of small (6-8 students) practical work groups in some study courses, transformation of external practices into internal) and steady increase in the number of students (mainly on the annual increase in the number of Students of the English speaking group) in subsequent years allowed to increase the FTE, reaching 48.11 FTE in 2020. The increase in the number of lecturers is mainly realized by increasing the number of lecturers (as of 1.09.2013 it was 11.74, but as of 1.09.2019 already 26.7 lecturer posts - i.e. 15 FTE more).

Both elected and unelected academic staff are involved in the implementation of the study field and programmes. More than 25% of the lecturers involved in the implementation of the study field have a doctoral degree, which provides students with a vision based on scientific knowledge. Biographies of teaching staff (CV in Europass format) and basic information on their qualifications (degree), status of election to a higher education institution, study programme and study courses in the implementation of which they participate, certification of knowledge of the official language and foreign language are attached in 2.3.6.2. In the 2019/2020 academic year, 95 lecturers were involved in the implementation of the veterinary medicine study programme, the distribution of which according to academic positions is lecturers 59.5%, assistant professors 15.8%, associate professors 17.8%, professors 7%. During the reference period, the proportional distribution of posts has changed (see Annex 2.3.6.2). In 2013, 11% of the VMF teaching staff were assistants, but since 2015, assistants who were employed only in academic work are no longer practised in VMF. For academic staff of this level, the LLU provided for the national minimum wage, which is an inadequate payment for the higher veterinary education, responsible and difficult work necessary for the performance of these duties. Scientific assistants and leading researchers are involved in the study process in the teaching of certain specific topics.

In addition to academic work, teaching staff in the study field are also involved in science. The results of the scientific activity of academic staff is compiled once at the end of the calendar year. This performance of scientific activity is evaluated in the points system and is linked to the remuneration of lecturers. Scientific activities of academic staff are included in the attached CVs of

lecturers (Annex 2.3.6.2).

Teaching staff are attracted to ensure the study process with appropriate academic qualifications, competence and experience in the field. The teaching staff involved in the conduct of specialized study courses usually also work in the field, which we consider a kind of positive practice. The teaching of narrow but no less important specialized study courses in medicine (cardiology, dentistry, ophthalmology, oncology, endocrinology, neurology, etc.) does not provide full academic workload, but requires continuous upskilling and improvement of experience. Working at the LLU Veterinary Clinic and being part-time lecturers at the same time, these specialists can transfer their experience to students. However, it has become increasingly difficult to attract new teaching staff in recent years, as the average pay for young vets (even without in-depth specialisation) is not competitive with the full-time salary of academic staff in the LLU even at the higher levels of academic positions. In order to rectify this, the university ensures, as far as possible, the upskilling of teaching staff in both pedagogical and research fields. Teaching staff have the opportunity to participate in scientific work through the scientific laboratories of the LLU, to participate in industry organisations, ministerial working groups, as well as to take advantage of the opportunities offered by various mobility programmes.

The mobility of lecturers (both incoming and outgoing) is implemented within ERASMUS+, BOVA, NordPlus programmes. LLU has cooperation agreements with other EU universities and faculties. Outgoing mobility activities allow VMF lecturers to find and implement mobility activities corresponding to their field of scientific activity and corresponding to study programmes (exchange of experience and conducting lectures, classes). Incoming and outgoing mobility promotes and has a positive impact on contacts between lecturers, cooperation in the field of science and academia. Lecturers gain new experience, learn new pedagogical methods that can be used in their teaching work. These visits find cooperation partners for research projects that are successfully implemented, for example, in joint doctoral thesis management, joint scientific publications. Cooperation with so-called third countries is also being developed and strengthened.

The participation of lecturers in mobility programmes depends on academic workload and involvement in the management or execution of various projects, thus varying from year to year. In cases where a lecturer teaches a small, specific course in terms of hours, it is problematic to use the offered programme mobility opportunities, as there is no substitute for the teaching staff of such study course. It is also not easy for lecturers to find a replacement for the lessons at VMF, because colleagues are busy this create difficulties in exploiting the mobility opportunities offered. As mentioned above, the workload in projects and participation in administrative work also hinders the full use of the opportunities offered by the programmes. Nevertheless, during the reference period teaching staff went 6 times for lecturing and 44 times in exchange of experience. The countries to which teaching staff go to conduct classes or exchange experiences are diverse, including Lithuania, Estonia, Great Britain, Italy, Spain, Belgium, Finland, Czech Republic, Turkey, Slovakia, etc. (Annex 2.3.6.3). Despite the difficulties identified, the mobility of teaching staff allows to get to know the cooperation universities, the study programmes implemented there, which in turn promote not only other colleagues, but also Latvian and international students to take advantage of the opportunities offered by mobility programmes in studies or internships.

Colleagues and scientists from partner universities have made a significant contribution to the training of veterinary students through incoming mobility programmes (see Annex 2.3.6.3). During the reference period, 17 foreign lecturers, scientists and veterinary practitioners gave lectures in various study courses. Special contributions have been made to the clinical training of students: Prof. Charlotte Sandersen from the Faculty of Veterinary Medicine of the University of Liège (Belgium), Professors Christoph Koch, Kata OrsolyaVeres-Nyeki and Karine Gendron from the

Faculty of Veterinary Medicine of the University of Bern (Switzerland), Prof. Thierry Olivry of the State Veterinary College of North Carolina (USA) and others who have made a significant personal contribution.

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

Financial support

During their studies, students have access to financial support in the form of scholarships (https://www.llu.lv/lv/scholarship-activity).

Students may apply for the competition:

1. The monthly scholarship of state scholarships – master's and undergraduate studies is 99.60 EUR (currently 200,- but it is supposedly related to COVID), in doctoral studies 113.83 EUR;
2. One-time scholarship – during a semester a student can apply for a one-time scholarship in the amount of 2 minimum scholarships;
3. Scholarship for the acquisition of a scientific degree - it is a scholarship in the amount of EUR 85.37 equivalent to a loan.

In addition for students, it is possible to apply for LLU Development Fund (LLU AF) scholarships (https://www.llu.lv/stipendijas - in Latvian). LLU AF offers a total of 18 scholarship programs from 40 to 1500 EUR. The scholarships are both monthly and one-off. Students of the Faculty of Veterinary Medicine have the opportunity to apply for a named scholarship from the LLU - Ludviga Kundziņa Scholarship .

Students of the **study direction "Veterinary Medicine"** may participate in the following scholarship competitions:

- In undergraduate studies – 11 scholarship programs (Kārlis Ulmanis scholarship, LLU Senate scholarship, Jānis Čakste scholarship, Mirdza Oškalne scholarship, LLU Student Union scholarship, Jānis and Milija Kavušu scholarship, Artūrs and Ērika Gerhards scholarship, Jānis Rūvalds scholarship, Latvi Dan Agro scholarship, Vagner family scholarship, Ludvigs Kundziņš scholarship.
- Doctoral studies – 1 scholarship program (Jānis and Milija Kāvušu stipendija).

4 students have received a Senate scholarship from the LLU. Three students received Jānis Čakste, Mirdza Oškalne and Artūrs and Ērika Gerhards scholarships. 7 students have received a Latvian Dan Agro scholarship. 3 students have received a Vagner family scholarship. Ludviga Kundziņa scholarship has been awarded each year to one student. On average, 12 students received a scholarship from the Student Union of the LLU per year.

Tuition fee relief

21.02.2018. The LLU Rector's Order No. 4.3-8/12 "On the Procedures for Granting Tuition Fee Relief to Students" lays down tuition fee relief (50-100%) for the following successful students:

1. employees of the LLU who are studying in doctoral study programs;
2. employees of the LLU who have been working in the main job for not less than 10 years,

children up to and including 24 years of age, having successfully studied for the first time in a full-time LLU undergraduate study program;
3. for students with special needs - disabled persons of the first and second groups up to and including 24 years of age who are successfully studying in full or part-time undergraduate and master's study programs;
4. orphans or persons without parental care up to and including the age of 24 who are successfully studying in full-time or part-time undergraduate and master's programs;
5. for student athletes who are successfully studying full-time undergraduate or master's study programs for the first time, who will meet any of the following criteria:

- member of the national team of the Republic of Latvia;
- If a cooperation agreement of the LLU has been entered into with the team represented by the student and the abbreviation "LLU" is included in the name of the team;
- If an athlete is included in the candidates for the national team of the Republic of Latvia and defends the honor of the LLU in sports competitions of different scales;

Support for foreign students

The LLU provides support to students from abroad on the following issues:

1. application for studies is implemented through the e-enrolment system "Dream Apply", which provides partially formalized admission procedures and thus significantly facilitates communication with the LLU for the applicant; SSC coordinators respond individually to specific questions of interest to the applicant;
2. all international students are provided with places in well-equipped student hostels;
3. in order to introduce foreign full-time and exchange students to the study and household environment of the LLU and the cultural environment of Latvia, "Welcome Week" is organized during the first week of each semester, during which corporate cohesive events are also held;
4. The LLU SSC provides technical support for visa, residence permits and insurance issues;
5. LLU SSC and faculty external relations coordinators, as well as study program directors inform students from abroad about the internal regulations of the LLU and the practice of their application, provide consultations on study and household issues, help to draw up documents, help to solve the problem situations that have arisen, etc.
6. LLU has a group of Erasmus Student Network and the Student Union of the LLU, which organizes student leisure and cultural events.
7. The external relations coordinators of the LLU inform foreign students about the available health care at the general practitioners and Jelgava polyclinic, and, if necessary, perform the functions of an attendant;
8. Starting from the 2019/2020 academic year, a semester-by-semester survey of international students on the courses introduced, which shows their satisfaction with the quality of these courses.

LLU and Faculty of Veterinary Medicine, Student Union

The Student Union of the LLU (LLU SP) is an organization representing university students. It deals with important issues regarding academic, social, cultural and sports life, represents and defends the opinion and rights of students in the LLU, the Student Union of Latvia, as well as other institutions and organizations at national and international level, organizes events, gains useful experience, improves its knowledge and abilities.

Curators

Upon commencement of studies, students are introduced to the curators of the course, which remain unchanged through all years of study. Curators organize meetings with students, where they discuss topical issues and provide support in the study process, as well as ensure communication between students and faculty management. Students are encouraged to turn to curators when the need arises.

Technical support

LLU Information Technology and Scientific Equipment Centre for students, when entering into a Study Agreement, assigns an IS user account of the LLU, which provides opportunities to use:

- LLU e-learning system (estudijas.llu.lv);
- LLU e-mail (webmail.llu.lv);
- WiFi in LLU buildings and hostels;
- LLU intranet (My LLU);
- e-books, e-journals and test databases subscribed to by the Library;
- Library search engine PRIMO DISCOVERY.

In the study process, significant support to students is provided by the directors of study programs, heads of VMF structural units and staff of the VMF in general.

Psychological support

Although students have problems with their psychological articles during their studies, no matter which curator, lecturer, or dean, it must be acknowledged that the highest level of professional psychological support for students is insufficient. Curators and university lecturers are not sufficiently competent and educated and cannot replace the advice of a psychologist, and this is necessary.

Career support

During the study process, students have the opportunity to understand and decide on the further direction of their career and development opportunities during various study and professional practices. All parts of the graduates after receiving the diploma and certificate already know where they will work. have become acquainted with the practice or, for example, during the development of students' research papers), offering the opportunity to start this career as civil servants, inspectors, farm animals, pet or mixed practice veterinarians. It must be admitted that in recent years there are more such vacancies than students who have not yet found their next job after graduation.

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

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

In scientific research, the LLU operates in accordance with the approved "LLU Strategy 2015-2022", which sets out three main long-term objectives: excellence in research, high-quality studies and effective university governance, which ensures targeted and efficient use of resources.

In the field of study, research is carried out in the bioscience block, where the main activities are related to agriculture, forestry and veterinary medicine. In the bioscience block, priority research directions have been selected on the basis of the needs and scientific competence of economic sectors, the amount and quality of available resources, forecasts regarding the availability of financial resources, as well as in consultation with interested parties, including entrepreneurs and scientific institutions of cooperation. Main areas of research: morphounctional research of the digestive apparatus of animals in terms of development and pathogenesis of diseases; Research of new diagnostics, treatment methods, medicines, feed and feed additives; Control and prevention of infectious and infestation diseases (https://www.llu.lv/lv/petijumu-virzieni in Latvian).

Scientific activity is directed in the directions of fundamental and applied research. The LLU Research Program defines several action plans:

1) The research human resources development plan;

2) A plan for the improvement of twinning;

3) A plan for participation in research and innovation support programs and technology activities;

4) A plan for increasing the number of international publications;

5) A plan for improvement of knowledge and technology management. Action plans contribute to the creation and transfer of study direction, research activities, new scientific knowledge in the field of interest.

The identified priority research directions of the bioscience block correspond to the objectives of the study field. Monitoring of the achievement of research and defined indicators is ensured by annual reports on scientific activity. For example, since 2013, academic staff involved in the implementation of the study field have been active in scientific research and dissemination of the results obtained, as evidenced by various levels of publication in the Scopus or Web of Science databases (123). In the field of research, funds are attracted through various projects both internationally and locally.

One doctoral study program in "Veterinary Medicine" is being implemented within the field. The study program is important for the development of the scientific potential of the study field, including the new generation of the academic staff and the capacity building of the study field. Prioritization of research activities and training of young scientists is done in accordance with the LLU Development Strategy for years 2015-2022, and the topics of PhD theses cover issues of importance for the general society, economy and environment - food safety; animal and environmental health and welfare; development and implementation of new technologies, development and inprovement of treatment and diagnostic methods. Doctoral students gain the practical research experience by participating in the implementation of the scientific projects (e.g. Latvian Council of Science funded State research programs, Fundamental and applied projects programme, Rural Support Service funded projects etc). Doctoral students and young scientists actively participate in conferences with reports based on their research results, using the opportunities offered by LLU and the Faculty of Veterinary Medicine, as well as the opportunities provided by international partners. Doctoral students with their supervisors publish scientific findings in the internationally peer-reviewed journals indexed in Scopus and Web of Science data

bases. In total, 76% of doctoral students are lecturers of the study programme in veterinary medicine, who will continue their academic career after the doctoral studies.

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.

The teaching staff employed in the field of studies carries out active research work, integrating academic and scientific activities in the study process, which is a precondition for strengthening the quality of the study and research, ensuring development of the academic staff and the sustainability of the academic career. (Education Development Guidelines, 2021-2027).

During the reporting period, lecturers participated in the development of several scientific projects, the findings of which were gathered in scientific publications and study materials, promoting the integration of the latest findings based on scientific projects in the study process. The results of scientific activity are used in the development of investigation, treatment protocols, definition of problem situations and their solutions, data processing, situation modelling, development of clinical and epidemiological works, used as elements of lectures and practical/laboratory work, state examinations. For example, involvement of teaching staff in the implementation of national research programs (NRP) " Multidisciplinary approach to monitor, mitigate and contain COVID 19 and other future epidemics in Latvia" in 2020-2021 or Agricultural Resources for sustainable production of quality and healthy food in Latvia (AgroBioRes) in 2014-2018. Teaching staff actively participate in practical projects of the Ministry of Agriculture that promote innovation and development of new products, for example, the preservation of genetic resources of cows in Latvia by applying embryo transfer and related biotechnology (BioReproLV), monitoring of the parameters of the Low-Price Rumen Bolus and early diagnosis of subacute rumen acidosis (SARA) in cows, expanding the network of cooperation partners for the implementation of the study direction, as well as modernizing the study environment.

Students are involved in scientific projects as scientific assistants, veterinarians or technical staff, providing assistance to researchers in the development of research, such as sampling and analysis, participate in data processing, which forms an understanding of the scientific process and the basic principles of research development. Students participate in the presentation of research results and preparation of scientific publications.

The motivation system developed by the LLU provides a data collection of a different scientific activities and practical research that are linked with the study process, which also provides financial support in accordance with the work carried out during the academic year.

The LLU has also developed an internal grant competition, where the involvement of students in scientific work is one of the preconditions for receiving a scientific grant, which promotes the involvement of students in the activities of LLU scientists.

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.

Veterinary medicine is characterized by a wide range of problems to be studied, where international cooperation opens up a wide range of possibilities for the development of veterinary research directions. So far, international cooperation has been particularly active in the fields of pharmacology and toxicology, infectious diseases and food hygiene, where the main topical issues are focused on the protection of public health, the control of infectious animal diseases and the development of new treatment methods and clinical medicine to improve the state of animal health.

International cooperation is carried out through participation in joint projects or the preparation of project applications, participation in international consortia, e.g. Horizon, ERA-NET .c. internationally funded projects.

Until now, successful cooperation has been carried out through various international projects focusing on academic or scientific excellence:

- European Commission Tempus, Erasmus+ (HECAFS) projects promoting knowledge transfer, promoting international cooperation and pooling of experience with different countries (Central Asia, European countries as cooperation partners)
- FP7, Horizon 2020 projects (Eurolegume, DISARM, SPICED)
- COST shares (CA17110, CA18208, CA18217)
- International grants from European Union organizations, such as the European Food Safety Authority (EFSA INNUENDO), the European Society for Clinical Microbiology and Infectious Diseases (ESCMID PREPARE-VET)

Various international events are organized to expand and intensify cooperation, such as seminars, international conferences, as well as lecturers participating in events organized by other countries and organizations (e.g. scientific committees, work of the orgcommittee). Invitations to participate in international symposia, congresses, conferences, seminars, etc. testify to the recognition of academic staff etc. The Faculty of Veterinary Medicine regularly admits scientists, students from other countries to promote the development of international cooperation. Academic staff are involved on the boards of international organizations (e.g. EFSA, ESVO), participate as experts in the evaluation of various organizations, educational institutions, improvement of study programs (Tajikistan, Kyrgyzstan, Azerbaijan). Academic staff also work on editorial boards of international journals (e.g. MDPI Pathogens, De Gruyter Rural Sustainability Research, Macedonian Veterinary Review, etc.). The number of publications with high impact factor in cooperation with foreign colleagues is also increasing, expanding the cooperation network.

Academic staff are actively involved in the work of various international organizations:

- European Association of Veterinary Universities (EAEVA)
- Federation of Veterinarians of Europe (FVE)
- Baltic Forestry, Veterinary and Agricultural University (BOVA)
- The Nordic Forestry, *Veterinary* and Agricultural University *Network* (*NOVA*)
- European Society of Veterinary Ophthalmology
- European Food Safety Authority (EFSA)
- European Veterinary Food Safety Teachers (EVFST), etc.

The future strategy for scientific work is based on:

- Expanding and strengthening national and international cooperation

- Doctoral students, young scientists support for the implementation of doctoral and postdoctoral research
- The purposeful circulation and publication of the results of international scientific research
- Promoting cooperation with producers, farmers, other organizations, promoting the practical application of research results.

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

Teaching staff in the study field were involved in the implementation of several scientific research projects. The most important in this group are international research projects, which focused mainly on research into issues of public interest, such as food safety, animal health, antimicrobial resistance and food security, such as 'Securing the spices and herbs commodity chains in Europe against deliberate, accidental or natural biological and chemical contamination (2013-2016)', Enhancing of legume growing in Europe through sustainable cropping for supply protein for food and feed (2014-2017), Disseminating Innovative Solutions for Antibiotic Resistance Management (2019-2022).

The European Commission's Tempus and Erasmus+ KA2 promoted cooperation with European and Central Asian universities, organizations, businesses, promoting scientific research, mobility, scientific transfer between participating organizations. As a result of project implementation, study materials have been developed and experience has been gained in improving the quality of scientific work.

Participation in international project tenders of various organizations promoted international research and cooperation, the exchange of ideas, the creation and implementation of new scientific knowledge in practice, such as EFSA *A novel cross-sectorial platform for the integration of genomics in surveillance of foodborne pathogens* or ESCMID PREPARE-VET *Towards a comprehensive education and training of European veterinary students in antimicrobial stewardship,* aimed at solving and implementing problems relevant to society and science - characterization of food infectious agents and detection of outbreaks of food infections, monitoring of antimicrobials.

At the national level, teaching staff of the study field are involved in state research programs (NRP), national project competitions (Latvian Council of Science, LZP), as well as engage in research commissioned by different ministries to solve problems relevant to the national economy.

2014-2018 teaching staff of the study field were involved in the subsections of the National Research Programme (NRP) Agricultural Resources for the Sustainable Production of Quality and Healthy Food in Latvia: No. 3 "Genetic research of economically important signs of dairy cows and pigs of local origin for the production of quality food products and development and testing of feed materials of natural origin (LIVESTOCK COMMUNITY)", No. 5 "Research of resistance of micro-organisms and other biological and chemical risks processing development and use in the food

chain (RISKS)'. In 2020-2021, active research took place in the NRP “Multidisciplinary approach to monitor, mitigate and contain COVID 19 and other future epidemics in Latvia" within the framework of the project. Participation in national research programs activated national and international cooperation in research, involvement of students in science, acquisition of high-quality scientific knowledge, publication in high-quality journals and integration into the international scientific space. The results of individual projects were the development of science-based recommendations, e.g. project VPP No 5 developed guidelines for the use of antibiotics in veterinary medicine.

Participation in fundamental and applied projects funded by the Latvian Council of Science contributed to solving internationally important scientific problems, which focused mainly on public health, its protection against infectious diseases and zoonoses, the promotion of animal health: the incidence of Q fever in dairy herds in Latvia and its impact on reproduction rates, the characterization of the general and mastitis susceptibility genetic background of locally sourced ruminant breeds in Latvia, *whole genome-based characterization of environmental Listeria spp. and their role in ruminants listeriosis and public health.* For significant achievements in Latvian science for the implementation of the Latvian Council of Science project, the group of teaching staff was awarded with the Award of the Latvian Academy of Science for the project "Research and technological solutions for sustainable cultivation and full use of sea buckthorn".

Scientific projects commissioned by ministries were aimed at improving the sustainability of agriculture, animal health, and improving the quality of life of society. In cooperation with animal breeders, producers, organizations, other scientific institutions (e.g. Riga Technical University, Rīga Stradiņš University), lecturers from the field of research engaged in the implementation of projects of importance for the economy, such as the conservation of genetic resources of cows in Latvia through embryo transfer and related biotechnology (BioReproLV), monitoring of the parameters of the Low-Price Rumen Bolus and early diagnosis of subacute rumen acidosis (SARA) in cows, development of an antiphrastic phyto-product containing plant extracts'.

Teaching staff of the study field participate in the work of the Scientific Committee of International Scientific Conferences and Organizational Committees (Students on their Way to Science, conference Veterinary Science and Practice, Nordic Association of Agricultural Scientists, organizers of other institutions), organize networking events, such as long-standing seminars of universities in the Baltic States, meetings of regional groups of European veterinary medical education institutions (EAEVA), other organizations and plants reception of school guests and promotion of cooperation.

The experience of teaching staff in scientific work is one of the factors in project competitions, of the attraction of doctoral students, therefore each teaching staff is aware of the importance of scientific work in academic career. The results of the teaching staff's work are evaluated by maintaining employment relations with the lecturers. The evaluation of scientific work criteria is laid down in the university's regulatory framework.

The involvement of teaching staff in scientific work is one of the quality indicators of the teaching staff's work, which is evaluated and allows lecturers to receive a supplement according to the work done. The evaluation of teaching staff includes criteria such as project attraction, involvement in project implementation, scientific publications, management and review of students' scientific papers, review of publications, and other organizational activities. The collection of information and evaluation of the quality of the scientist's work is carried out centrally at the Science and Project Development Centre of the LLU.

4.5. Specify how the involvement of the students in scientific research and/or artistic creation activities is promoted. Provide the assessment and description of the

involvement of the students of all-level study programmes in the relevant study direction in scientific research and/or artistic creation activities by giving examples of the opportunities offered to and used by the students.

The aim of students' scientific research is to deepen students' knowledge in certain fields of veterinary medicine, to learn the principles of development of scientific work, the establishment of the correct working methodology, statistical processing of the obtained results, interpretation. Students additionally acquire new skills to work with scientific literature, discuss, draw conclusions and present it at the annual International Student and Master's Scientific Conference.

In order to expand contacts between students and teaching staff, to promote international scientific cooperation, the LLU student conferences has become international since 2009 (at the initiative of the VMF). Conferences in accordance with the standards of the international conference are held in English. The work of the veterinary section of the conference is led by one of the students who has an interest in science and a good knowledge of English.

Summary brochures of the VMF Student Scientific Conference were published until 2013, but from 2014 summaries of student papers are published only in the collections of the Scientific Conference of Students and Masters of the LLU "Students on Their Way to Science", which are distributed on CDs (until 2019). Starting from 2014, the summaries can be viewed in full on the website of the LLU http://sws.llu.lv/proceedings.

From 2013 to 2020, 53 papers were prepared. The largest number of papers was in 2016 – 11 works. Since 2017, a comparatively smaller number of scientific papers have been presented at conferences, because 6th year students are undergoing Clinical Rotation Practice III (during April and May), when their attestation works are being developed and the analysis of research data has not yet been completed.

The scientific papers of VMF students are usually managed by VMF teachers. Students themselves are free to choose what to study or the chosen supervisor recommends the topics. Comparatively more scientific studies have been carried out on farm animals (a total of 19 topics during the reference period) and on pets (dogs, cats; a total of 13 topics). Other animal species (wild animals, chinchillas, fish, birds, bats, etc. total of 21 topics) have also been studied.

The methodology of scientific work carried out by students varies greatly. Some are choosing topics regarding individual animals (especially in surgery, pathology, forensic veterinary medicine, anatomy and internal diseases), groups of experimental animals (more often, studying internal, infectious and parasitic diseases, physiological processes, in recent years - also herd health problems), laboratory studies (more often - in parasitology, food hygiene, infectious diseases and histology), statistically analyzed health data accumulated in databases (on clinic patients or individual livestock (internal, infectious, reproductive diseases, surgery, herd health, food hygiene), technological solutions (pathological anatomical sections, reproduction) and documented historical studies (anatomy and history of Veterinary Medicine of Latvia).

The VMF does not provide funding for the performance of students' scientific work, therefore many studies are carried out by students participating in the implementation of local (Latvian Council of Science, State Research Programme), various international scientific project experiments or contract work, in cooperation with their scientific work manager. Students can use laboratory and diagnostic equipment for veterinary studies free of charge for scientific examinations. Only a few studies have invested personal funding from students or supervisors.

Student research varies in complexity and quality. All student papers during the conference are evaluated by a jury of 6-10 people, which includes lecturers from all VMF institutes, veterinarians of the clinic, sponsors of prizes for scientific works, as well as heads of delegations from neighboring countries. The jury evaluates the quality of students' oral presentation: visual presentation, orator skills, inclusion within 10 minutes, methodology of the experiment performed, statistical analysis of results and erudition in response to questions from the audience. In order to promote the quality of the development and presentation at each conference three students receive valuable prizes given by SIA "Universities Vetfonds" for the best research, while the VMF decanate awards promotion prizes to students of the first two courses. However, since 2010, another - the most valuable, Latvian Veterinary Association (LVB) sponsored Main Prize in the amount of EUR 150 for the continuation of scientific research - has been awarded. The student receives the monetary prize after publishing the scientific article in the LVB journal.

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

The Faculty of Veterinary Medicine (VMF) of the Latvia University of Life sciences and Technologies (LLU) in the year of 2016 introduced practical work in small groups with 5-7 students in one group in order to ensure a high-quality individual training process. In this way, students are provided with innovative, high-quality individual, practical and controlled, safe and ethical training with animals, which is especially important in the training of clinical and other practical study courses (for example: clinical diagnostics, surgery, internal medicine, pathology, etc.)

LLU VMF students and lecturers also actively use the Moodle environment available at the university - E - studies. This platform is used to store lecture and practical work materials so that students have free access to them. Various additional study materials are also placed on the platform: video reels, useful links and publications, etc. The platform is also used to record and communicate with students, for lecture and practical work attendance registration. Over the past year, the platform has been actively using the Big Blue Bottom (BBB) online program to conduct lessons remotely.

In order to make the structure of lectures and practical work more attractive and interesting for students, teachers also use tools such as Socrative, Biorender, Mentimeter, Kahoot, etc.

LLU VMF, following the global and European practice, as well as the recommendations of EAEVE (European Association of Establishment for Veterinary Education), has started to introduce an innovative, modern, effective and animal welfare based, ethical training base that develops students' clinical skills. Since 2016, the simulator laboratory has been providing the conditions for good, responsible veterinary practice and ethical norms in relation to the animal, within which the use of an animal for a large number of students is not allowed for a certain procedure. The simulator laboratory provides quality training for VMF latvian and english students in order to create understanding and promote not only the growth of practical skills, but also to strengthen personal responsibility for the work to be done and to educate students on ethical and professional attitude.

Currently, the simulator laboratory is actively used in clinical subjects, such as "Clinical Diagnostics", "Operative Surgery", "Small Animal Surgery", "Farm Animal Surgery", "Internal Medicine", "Pharmacology", etc.

In the simulation laboratory, it is possible to learn, for example, the skills of taking blood samples from dogs, cats and horses, and inserting an intravenous catheter. It is important to learn these skills by repeating them on the simulator several times, until the first attempts on a live patient. It is important to acquire the skills of operative and small animal surgery in the simulator laboratory. The simulations include training ranging from proper preparation of the surgeon's hands before surgery using a UV light stain detector to complete preparation of the surgeon for aseptic surgery. On several types of materials, it is possible to learn the methods of various surgical sutures, as well as to learn the preparation of the operating area, intubation and positioning of the animal. Only after repeated repetition of procedures in the simulation, after testing knowledge and skills, students are allowed to perform these procedures on real patients. Within the course of pharmacology, it is possible to simulate different types of drug administration, work with drug solutions, preparation of injections. The simulation laboratory is also equipped to work with dead animal tissues, to learn specific surgical methods.

The simulation laboratory is available to students starting from the 3rd year, within the study subjects in which the laboratory is integrated for practical works, as well as it is possible to visit the laboratory on a working days in the afternoon.

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

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

LLU Faculty of Veterinary Medicine cooperated with various Latvian organizations to achieve the goals and results of the study program and to ensure and improve the quality of the study process: Ministry of Agriculture (MA), Ministry of education (ME) Food and Veterinary Service (FVS), Latvian Veterinary Society (LVA), Latvian Medical Association (LMA), Farmers' Cooperation Council (LOPS), Farmers' Parliament (ZSA) , Food Safety, Animal Health and Environmental Research Institute BIOR (BIOR), Agricultural Data Center (ADC).

For example, representatives of FVS, MA, LVA, BIOR are annually involved in the final state examination commission of the study program, where they participate in the student examination process. After the exams, the members of the commission discuss, evaluate the students' performance and compile a list of recommendations for improvements of the study process. Thus providing vision what are needed by the industry.

FVS, LVA, MA, ADC and others regularly participate in the implementation of the study process by giving guest lectures to students on related topics, thus providing practical and direct information on management process in these organizations and their connection with the veterinary profession and work.

FVS and BIOR Institute provide students with internships included in the study program on food safety, veterinary expertise, laboratory work, etc. realization. By engaging in the implementation of these practices, organizations train and attract potential employees to work in their organization.

Employers (private entrepreneurs) regularly participate in the provision of student internship places provided for in the study program (for the list of entrepreneurs, see the appendix "Practice_places" in Section 5.3). Private companies that take students for internships through LVB are awarded by additional qualification points for the renewal of the practice certificate. During the reporting period, there were no financial support subsidies for entrepreneurs who provide student internships.

MA, ME, LVA, LMA, LOSP, FVS, BIOR, ZSA Latvia university faculty of Biology, Riga Stradins university representatives are members of the VMF Advisory Council, formed in March 2018. The aim of the Council is to maintain an independent body dealing with various issues related to veterinary medicine and its development. Council do advise and provide a vision on strategic issues in the field of veterinary medicine so that they can be implemented in the study process.

LVB, FVS, LOSP, BIOR participated in the evaluation study programm in of 8.2.3. within the project.

Cooperation ensures the achievement of the goals and quality criteria of the study program, as the institutions and entrepreneurs of the field are involved in both consultative and strategic work, as well as in the direct implementation of the study process by giving guest lectures and providing internships.

In 2015, the LLU Internationalization Plan was developed, which determines the goals, priorities and performance indicators of the university's international cooperation in the fields of exchange studies, full-time studies of foreigners and living conditions of foreigners.
1) The plan determines priority co-operation with higher education institutions with a similar study and research profile in the EU membership and partner countries, whose study directions correspond to those implemented by the Latvia University of Life Sciences and Technologies.

2) The plan envisages priority co-operation with international university associations whose active members are LLU - European Association of Life Sciences Universities (ICA), Baltic University Program (BUP), Baltic and Nordic Agricultural University Network (BOVA - NOVA), Nordic Association of Agricultural Scientists (NJF), etc., and who carry out their academic activities in similar fields of study and research.

3) As the offer of international cooperation from foreign universities is wide, LLU focuses its activities on those partners with whom such cooperation is long-lasting and productive. Also at the level of LLU study fields there are foreign partner universities or their faculties, with which there is a regular exchange of students and lecturers (Erasmus + program, etc.), participation in joint projects both in studies (for example, SO 8.2.3.) And research, mutual participation in scientific research. and methodological conferences, etc.

The general cooperation agreements / memoranda concluded by LLU are presented in the table in Annex 4, but the higher education institutions with which Erasmus + inter-institutional agreements have been concluded-https://www.llu.lv/sites/default/files/2018-10/LLU%20ligumi%20_Erasmus%2B%20partneraugstskolas_HEIs%2027.03.18.xls

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

attracted students and the teaching staff.

For attracting foreign students, LLU first provides information about its offer, which can be found on the websites (see section ***Availability of information in the study field).*** LLU implements various marketing activities to attract international students: contracts are concluded with recruiting agents, providing for an assessment of the effectiveness of their work, e-marketings, participation in international education fairs and agent forums, etc. LLU is a member of the Latvian Association for the Export of Higher Education (AIEA) and participates in activities organised by it. Documents of foreign applicants are circulated electronically. Support for admission, commencement of studies, life is provided by the International Cooperation Centre of the LLU, while the corresponding ones of the study field provide support related to the study process and acquisition of study content. Since 2015, 131 applications have been received for full-time studies, of which 79 students from 16 countries are currently studying (Tables 1, 4). The greatest interest in study opportunities is shown by young people from Germany (34), Finland (22), India (3) and Ukraine (3).

For short-term mobility, foreign students actively use the Erasmus+ programme for studies and internships, as well as the opportunities offered by regional organisations – for example, Nordplus Baltic and Nordic programme scholarships (Table 2). Mutual mobility is also implemented within the NOVA-BOVA network. Teaching staff of the study field also participated in the organization of various courses (ERASMUS IP, 2013-2015, NOVA-BOVA -2015, 2017) to promote mobility between veterinary education institutions.

Funding from the Erasmus+ programme is used to attract foreign lecturers, or an employment contract is concluded if the presence of a teaching staff is necessary for the implementation of the study programme (Table 3 of annex Students and tacher mobility). Foreign lecturers conduct lectures and practical works and in separate study courses as anaesthesiology; pharmacotherapy and toxicology and small animal dernatolgy they do provide study proces reguraly (from 2014 till 2019). In the period from 2014 to 2019, 23 foreign lecturers from 12 different countries participated in the implementation of veterinary medicine study courses.

The LLU has launched the European Social Fund project "Improvement of academic staff of the LLU" (8.2.2.0./18/A/014), one of the activities of which is the attraction of foreign professors. Within the framework of this project, a visiting professor from Estonia in the sub-field of obstetrics, gynaecology is involved in the study programme, moreover work is being carried out with foreign colleagues on their possible involvement in project activities.

5.3. In the event that the study programme entails a traineeship, provide a description of the traineeship options offered to the students, as well as the provision, and work organisation. Specify whether the higher education institution/ college provides assistance in finding traineeships.

The study program "Veterinary Medicine" provides for ten practices:

1. Practical farmming, 1 CP;
2. Physiology, ethology and welfare, 2 CP;
3. Clinical practice I, 1 CP;

4. Large animal practice I, 1 CP;
5. Large animal practice II, 3 CP;
6. Clinical practice II, 1 CP;
7. Clinical rotation I, 6 CP;
8. Food hygiene and inspection, 4 CP;
9. Clinical rotation II, 3 CP;
10. Clinical rotation III, 17 CP.

According to the Study Regulations of the Latvia University of Life Sciences and Technologies, 1 CP corresponds to one week of practice (5 working days).

Division of LLU Faculty of Veterinary Medicine practices by place of localization:

1. Internal practices - the student practices at the objects of the Latvia University of Life sciences and Technologies under the guidance of the teaching staff and veterinarians practicing at the Latvia University of Life sciences and Technologies.
2. External practices - the student practices in private veterinary care institutions or animal housing, under the guidance of practicing veterinarians.

Veterinarians have an interest in providing students with an internship, not only to transfer their knowledge and provide practical skills, but also to facilitate their recertification process. In accordance with Cabinet Regulation No. 25 “Requirements for the issuance of veterinary practice certificates” The veterinarian must recertify once every five years. For the practical training of students, a practicing veterinarian is entitled to receive additional points.

Students choose external practices on a voluntary basis. If necessary, external practices supervisors help students to find a practices by engaging in communication with representatives of the potential practices place.

Posting of students in practice

Based on the application of the practice supervisor, the dean issues an order for the student's practice place (see example in annex "Order_for_practice)". For external internships, a tripartite internship agreement is drawn up between the Faculty of Veterinary Medicine, the student and the practicing veterinarian. Example of a tripartite internship agreement see in annex "Traineeship_agreement".

Information about practices

The practice “Practical farming” is carried out for one week in the second semester of studies at the LLU study and research farm “Vecauce”. During the internship, students acquire knowledge about the functioning of agricultural sectors, technological processes of production, as well as skills to recognize different agricultural sectors and the organization of activities in a multidisciplinary farm. At the end of the internship, students do group work and present it, and receive a test. The University provides students with an internship place, transport, as well as the opportunity to stay in a service hotel during the internship.

The first professional practice, which is directly related to veterinary medicine, is organized in the fourth semester of studies. The practice is organized after mastering the Anatomy and Physiology study courses. The practice is organized in the Stationary of farm animals of the Clinical Institute of the Faculty of Veterinary Medicine and in the Veterinary Clinic of the Latvia University of Life Sciences and Technologies (clinic of small animals, horses). Student work is organized in groups of up to five people. The main task of students is to improve practical skills in determining the basic physiological parameters of animals of different species, to analyze the behavior of animals, as well as to evaluate welfare indicators. The work done during the internship must be recorded in the

independent work protocol and orally defended upon receipt of a test.

Clinical practice I is organized in the seventh semester of studies. The practice is organized at the LLU teaching and research farm "Vecauce". Practical training is organized individually, i.e. two or three students spend one week studying and researching on the farm. During the practice, students are trained by a farm veterinarian and a lecturer at the Clinical Institute. During the practice, students supplement both theoretical knowledge and acquire practical skills (fixation of animals, performance of clinical manipulations, prescribing treatment), as well as perform preventive measures in the herd. During the internship, the student must select one clinical case and perform an in-depth analysis of this case. The performance of the internship is assessed by a test without a mark. The University provides students with a practice place, transport, as well as the opportunity to stay in a dormitory during the practice.

Large animal practice I is provided in 8 semester and takes place in the teaching and research farm “Vecauce”. During the practice, all 4th year students spend one week on the farm. Students are divided into groups and under the guidance of lecturers perform practical work in various fields - clinical diagnostics, obstetrics and gynecology, surgery of large animals and oral diseases according to the schedule. The University provides students with a practice place, transport, as well as the opportunity to stay in a dormitory during the practice.

Large Animal Practice II is an external practice during eighth semester where students practice for three weeks under the guidance of certified veterinarians. The main goal of the practice is to acquire basic skills in gynecological examination of farm animals, artificial insemination and obstetric care. The practice supervisor offers students a practice where practice tasks can best be completed. The places of practice chosen by the students are listed in a single document, which is submitted to the dean. Based on the application, the dean orders the students to practice by order. After the order is issued, a tripartite internship agreement is drawn up. During the practice, the student must compile a practice diary, as well as choose three clinical cases, which must be presented orally after the practice. The practice is evaluated with a mark.

Clinical practice II takes place in the ninth semester and is implemented in the small animal clinic of the Veterinary Clinic of the Latvia University of Life sciences and Technologies. During the practice, students learn to communicate with animal owners, animal examination, disease diagnosis, treatment, keeping sick animals, feeding, care, as well as disease prevention. The internship is organized during the study process according to a schedule drawn up by the course senior. The practice is carried out on a 24-hour basis to ensure the acquisition of emergency cases for students. Clinical Practice II is assessed by an evaluation without a mark. In order to receive a test, the student must select one clinical case during the internship and perform an in-depth analysis.

During Clinical rotation I practice, students supplement their theoretical knowledge and acquire practical skills in working with animals (farm animals, horses, pets, exotic animals). During the tenth semester, students practice for six weeks under the guidance of certified veterinarians (external). Students have the opportunity to choose the practice place. If the student has not been able to find an practice place, then the practice supervisor does so in agreement with the student and the potential practice supervisor. The selected practice places are listed in a single document, which is submitted to the dean. Based on the application, the dean orders the students to practice by order. After the order is issued, a tripartite internship agreement is drawn up. During the internship, students must select three clinical cases and perform an in-depth analysis and present one clinical case orally.

The practice “Food Hygiene and Inspection” is implemented in cooperation with the Food and Veterinary Service (FVS). In practice, students learn to evaluate the quality and safety of products of animal origin (meat, its products and fish and fishery products). The study course includes: meat

hygiene and meat inspection course, within which cattle, pigs, birds, etc. are studied. animal slaughter technologies, slaughter hygiene, Good Manufacturing Practice (GMP) and self-monitoring system (HACCP) in slaughterhouses. The basics of hygiene of fish and fishery products are included in this practice. During the practice, students practiced in various FVS departments and animal slaughterhouses. Students are offered an FVS office closer to their place of residence as a practice place. At the end of the practice, students must submit a practice report. The evaluation of the practice is an evaluation with a mark.

The practices “Clinical Rotation II” and “Clinical Rotation III” are internal internships that take place in the 11th and 12th semesters. The practice is carried out at LLU facilities - Small animal clinic, Horse clinic, Farm animal premise (Vecauce), Mobile clinic, Pathological examination center. During the practice, students are divided into six groups and are practicing in each block for three weeks and do rotate through all blocs:

1. Small animal therapy. Place of practice - LLU Veterinary Clinic.
2. Small animal surgery. Place of practice - LLU Veterinary Clinic.
3. Equine veterinary medicine. Place of practice - LLU Veterinary Clinic.
4. Farm animal veterinary medicine. Place of practice - MPS Vecauce.
5. Mobile clinic. Place of practice - LLU Veterinary Clinic farm animals department, trips to farm animals and horses.
6. Pathological examination. Place of practice - Pathology Center of the Faculty of Veterinary Medicine of the Latvia University of Life Sciences and Technologies.

The practice focuses on practical training. During this practice, the student must learn to communicate with the owner, acquire the ability to independently examine animals of different species, perform clinical manipulations, perform additional diagnostic methods of first need, as well as prescribe treatment. In each practice block, the student receives an assessment based on the performance of practical manipulations and analysis of clinical cases. At the end of the internship, students must develop a “Clinical Rotation Report”. In the study course “Clinical Rotation II” the student receives an evaluation without a mark, but in the study course “Clinical Rotation III” an evaluation with a mark.

Internal practices for foreign students are provided in English in accordance with the practices program published by the teaching staff of the Latvia University of Agriculture.

Foreign students choose external practices according to their field of interest in veterinary medicine. The selected places for external practices are both with veterinarians practicing in Latvia, who have a good command of English, and in the students' home countries, where the practices is carried out in accordance with the practices program and the concluded tripartite agreement.

Students have the opportunity to use Erasmus + mobility for practices abroad. LLU provides funding for foreign practices within the framework of Erasmus + mobility projects on the basis of individual agreements.

The list of practice places where students have completed internships during the reporting period is indicated in the appendix "Practice_places".

5.4. In the event that joint study programmes are implemented in the study direction, provide the justification of the creation of the joint study programmes and a description and assessment of the selection of the partnering higher education institutions by including information on the principles and the procedures for the creation and implementation of these joint study programmes. In the event that no joint study

programmes are implemented in the study direction, provide a description and assessment of the plans of the higher education institution/ college for the creation of such study programmes within the study direction.
(Not applicable)

II - Description of the Study Direction (6. Implementation of the Recommendations Received During the Previous Assessment Procedures)

6.1. Assessment of the fulfilment of the plan regarding the implementation of the recommendations provided by the experts during the previous accreditation of the study direction, as well as the assessment of the impact of the given recommendations on the study quality or the improvement of the study process within the study direction and the relevant study programmes.

The international evaluation of the study field and the study programs included in it took place in 2012, at that time the study field included 15 study programs (6 undergraduate studies (including Veterinary Medicine), 6 master's, 3 doctoral study programs). The main reprimands of the experts were related to the closure or consolidation of some study programs, financing, staff development, professional development and improvement of foreign language skills, improvement of the quality of final theses, involvement of students in one study program. In the accreditation of the previous study field, most of the recommendations provided by the experts have been fulfilled, or action plans have been developed for their implementation, ensuring the improvement, consolidation and increase of the study quality of both the study field and the study programs included in it. The improvement of the study programs included in the study direction is also facilitated by the project 8.2.3. Recommendations of Latvian and foreign experts involved in the improvement of study programs within the framework of “Improvement of LLU governance”.

All recommendations received in previous accreditation have been implemented, which has significantly improved the quality of the veterinary medicine programme.

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

The main suggestions made by the accreditation experts in the previous program evaluation process related to the need for the recognition of the Veterinary Medicine program by the EAEVE. Therefore, an evaluation of the program self-evaluation report was carried out in 2016, but at the end of 2016 EAEVE experts came to the Faculty of Veterinary Medicine to carry out a thorough infrastructure survey and analysis, interview staff and students. The main complaints were related to the insufficient number of animals in the equine clinic. This reprimand was remedied by significantly increasing the number of patients and introducing an organized rotation practice block

in the equine clinic. The re-evaluation in 2019 found that the shortcomings had been remedied and the Veterinary Program was granted an EAEVE Approval certificate attesting to the compliance of the Faculty of Veterinary Medicine and the veterinary programs with the requirements of Directive 2005/36/EC and Directive 2013/55/ EU.

Annexes

I. Information on the Higher Education Institution/ College		
List of the governing regulatory enactments and regulations of the higher education institution/ college	1_dala_1_pielikums_EN_Main internal legal acts and regulations.docx	1_dala_1_pielikums_Galveno_normativo_dokumentu_saraksts.docx
Information on the implementation of the study direction in the branches of the higher education institution/ college (if applicable)		
Management structure of the higher education institution/ college	2_Annex_LLU_management_structure_EN.docx	2_Pielikums_LLU_parvaldibas_shema_LV.docx
II. Description of the Study Direction - 1. Management of the Study Direction		
Plan for the development of the study direction (if applicable)	Recomendation implementation plan (1).docx	Pilnveides_plana_istenosana (1).docx
Management structure of the study direction	diagram of the administrative structures.png	Studiju virziena pārvaldības struktūra.png
II. Description of the Study Direction - 3. Resources and Provision of the Study Direction		
Basic information on the teaching staff involved in the implementation of the study direction	Mācībspēki_Teaching staff_LV_ENG.xlsx	Mācībspēki_Teaching staff_LV_ENG.xlsx
Biographies of the teaching staff members (in Europass Curriculum Vitae format)	CV eng.pdf	CV LAT.pdf
Summary of the statistical data on the incoming and outgoing mobility of the teaching staff over the reporting period	Teaching staff mobillity.docx	Mācībspēku mobilitāte 2013.-2020..docx
II. Description of the Study Direction - 4. Scientific Research and Artistic Creation		
List of the publications, patents, and artistic creations of the teaching staff over the reporting period	Macibspeku_publikaciju_saraksts_VMF (1).xlsx	Macibspeku_publikaciju_saraksts_VMF (1).xlsx
II. Description of the Study Direction - 5. Cooperation and Internationalisation		
List of cooperation agreements	List of international agreements.docx	Sadarbības līgumus araksts.docx
Statistical data on the teaching staff and the students from abroad	Students and teacher mobility.docx	studentu un docētāju mobilitāte.docx
Statistical data on the mobility of students (by specifying the study programmes)	VMF_student_mobility_2013_2020_total.xlsx	VMF_student_mobilitāte_2013_2020_kopējā.xlsx
Description of the organisation of the traineeship of the students	Traineeship_regulation_2014_2018_LV_EN.docx	Praksu_nolikums_2014_2018_LV_EN.docx
Information on the agreements and other documents confirming the traineeship of the students in companies	Traineeship_agreement_2018_EN (1).docx	Prakses_ligums_2018.docx
II. Description of the Study Direction - 6. Implementation of the Recommendations Received During the Previous Assessment Procedures		
Overview of the implementation of the provided recommendations	Rekomendāciju izpildes pārskats_Review of the implementation of recommendations.docx	Rekomendāciju izpildes pārskats_Review of the implementation of recommendations.docx
Description of the Study Programme - Other mandatory attachments		
Confirmation signed by the rector, director or the head of the study programme or the study direction of the higher education institution/ college which states that the official language proficiency of the teaching staff involved in the implementation of the relevant study programmes of the study direction complies with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period		
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of 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 (if applicable)	Compliance annex 3.docx	Atbilstiba_profesijas_standartam.docx
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)		
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme		
Curriculum of the study programme (for each type and form of the implementation of the study programme)		
Descriptions of the study courses/ modules		5.2.5.3_LV.pdf
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.		
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued		
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme		
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement		

If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		
Description of the Study Direction - Other mandatory attachments		
Electronically signed application form for assessment of a study direction	IESNIEGUMS_Studiju_virziena_novertesanai_veterinarmedicina_EN.docx	Iesniegums_studiju_virzienam_Veterinarmedicina_novertesanai.edoc

Other annexes

Name of document	Document
FinalReportJelgavaRV2019.pdf	FinalReportJelgavaRV2019.pdf
LLU Dokumenti latviešu valodā	LLU Dokumenti latviesu valoda.zip
LLU Documents in English	LLU Documents in English.zip
Eksperta_atzinums_LLU_Veterinarmedicina_izmainas.pdf	Eksperta_atzinums_LLU_Veterinarmedicina_izmainas.pdf
Prakses vietu uzskaitījums	Prakses_vietas_2013_2021.docx
List of practice places	Practice_places_2013_2021.docx
Prakses rīkojuma piemērs	Prakses_rīkojuma piemērs.pdf
Order for practice	Order_for_practice.pdf
Papildināts_studentu un mācībspēku mobilitāte	studentu un docētāju mobilitāte_j.docx
Updated_student and teacher mobility	Students and teacher mobility_j.docx
Dalība projektos	Dalība_projektos_veterinārmedicīna.docx
Participation in the research projects	Participation in research projects.docx
Publikācijas	Veterinārmedicīna_publikācijas_visas.docx
Publications	Publications_veterinarmedicine_all.docx
Ziņojumi konferencēs	Ziņojumi konferencēs.docx
Conference presentations	Conference presentations.docx
Defended Doctoral thesisFVM2013to2020.docx	Defended Doctoral thesisFVM2013to2020.docx
List of publications.docx	List of publications.docx
LLU accreditation 2013.pdf	LLU accreditation 2013.pdf
1_dala_1_pielikums_EN_Main internal legal acts and regulations.docx	1_dala_1_pielikums_EN_Main internal legal acts and regulations.docx
1_dala_1_pielikums_Galveno_normativo_dokumentu_saraksts.docx	1_dala_1_pielikums_Galveno_normativo_dokumentu_saraksts.docx
Ik semestra studentu aptauja_jautajumi.docx	Ik semestra studentu aptauja_jautajumi.docx
Studiju programmas finanses_Veterinārmedicīna_2 līm un doktora.docx	Studiju programmas finanses_Veterinārmedicīna_2 līm un doktora.docx

Veterinary Medicine (49640)

Study field	*Veterinary Medicine*
ProcedureStudyProgram.Name	*Veterinary Medicine*
Education classification code	*49640*
Type of the study programme	*Second level professional higher education programme (length of full time studies at least 5 years)*
Name of the study programme director	*Kaspars*
Surname of the study programme director	*Kovaļenko*
E-mail of the study programme director	*kaspars.kovalenko@llu.lv*
Title of the study programme director	*Dr.med.vet.*
Phone of the study programme director	*+37129344433*
Goal of the study programme	*Provide sufficient, ethical and science-based veterinary education that prepares professionals capable of investigating and treating animals, promoting animal breeding, ensuring their health and welfare, protecting people from zoonoses and ensuring the production of high-quality food of animal origin for human consumption.*
Tasks of the study programme	*The task of the veterinary study programme is to ensure that, upon its completion, young veterinarians are ready to work in clinics and other fields related to veterinary medicine.*

Results of the study programme	*Knowledge:* *• on the causes, nature, course, effect, diagnosis and treatment of animal diseases, whether considered individually or in groups, including specific knowledge of the diseases which may be transmitted to humans;* *• on professional terminology as well as the legislation in the field of veterinary medicine;* *• on the behavior and protection of animals;* *• on the anesthesia of individual animals and groups of animals;* *• on aseptic surgery and painless death;* *• of preventive medicine;* *• of animal feeding, feed production;* *• of the hygiene and technology involved in the production and putting into circulation of animal feedstuffs or foodstuffs of animal origin intended for human consumption;* *• for the responsible and sensible use of veterinary medicinal products, in order to treat animals and to ensure the safety of the food chain and the protection of the environment;* *• of the structure, functions, physiology and topography of animals;* *• of the breeding, reproduction and welfare of animals;* *• on data acquisition, processing and statistical analysis;* *• on effective communication, teamwork; business management, understanding the basic concepts of economics;* *• of pathological changes.* *Skills:* *• in the area of animals care, feeding, welfare, reproduction and hygiene;* *• clinical, epidemiological and analytical skills required for the prevention, diagnosis and treatment of animal diseases;* *• of the hygiene and technology involved in the production, manufacture and putting into circulation of animal feedstuffs or foodstuffs of animal origin intended for human consumption, including the skills required to understand and explain good practice in this regard;* *• required for the responsible and sensible use of veterinary medicinal products, in order to treat the animals and to ensure the safety of the food chain and the protection of the environment;* *• sufficient clinical and other practical experience obtained under the guidance of qualified specialists;* *• able to communicate clearly and convincingly with the public on professional issues;* *• ability to manage practical activities in accordance with the existing legislation and to base professional activities on the observance of ethical, evidence-based principles promoting public health and safety in general;* *• ability to independently use theory, methods and problem-solving skills to perform research or highly qualified professional functions.* *Competences:* *• understand the ethical and legal responsibilities of the veterinarian in relation to animals, the environment, clients and society;* *• ability to demonstrate knowledge of the organisation and management related to business economics;* *• communicate effectively with clients, the public, professional colleagues and responsible authorities, using language appropriate to the audience concerned and in full respect of confidentiality and privacy;* *• prepare accurate clinical and client records, and case reports when necessary, in a form satisfactory to colleagues and understandable by the public;* *• ability to evaluate literature and presentations critically;* *• handle and restrain animal patients safely and with respect to the animal;* *• perform a complete clinical examination and demonstrate ability in clinical decision making;* *• develop appropriate treatment plans and administer treatment in the interests of the animals;* *• is able to provide first aid for common animal species;* *• can assess the physical condition, welfare and nutritional status of an animal or group of animals and advise the client on principles of husbandry and feeding;* *• collect, preserve and transport samples, select appropriate diagnostic tests, interpret and understand the test results;* *• understand the contribution that diagnostic techniques can make in achieving a diagnosis. The ability to use basic imaging equipment and carry out an examination effectively as appropriate to the case;* *• recognise signs of possible notifiable, reportable and zoonotic diseases and take appropriate action, including notifying the relevant authorities;* *• prescribe and dispense medicines correctly and responsibly in accordance with legislation and latest guidance;* *• report suspected medication adverse reactions;* *• is able to act in accordance with general aseptic requirements and perform safe and appropriate fixation and medical manipulation of animals, as well as humane euthanasia of animals and autopsies of animal carcasses for diagnostic purposes;* *• safely perform sedation, and general and regional anesthesia;* *• perform ante-mortem inspection of animals destined for the food-chain, correctly identify conditions affecting the quality and safety of products of animal origin;* *• perform inspection of food and feed including post-mortem inspection of food producing animals and inspections related to food technology;* *• can advise on preventive programs appropriate to the species and in line with accepted animal health, welfare and public health standards;* *• is able to integrate the knowledge of different fields in the development of research or professional activity, to show an understanding of the scientific result or the possible impact of professional activity on the environment and society;* *• is able to evaluate animals' readiness for vaccination, explain immunisation issues;* *• on the causes, nature, course, effect, diagnosis and treatment of animal diseases, whether considered individually or in groups, including specific knowledge of the diseases which may be transmitted to humans.*
Final examination upon the completion of the study programme	*Three state exams.*

Study programme forms

Full time studies - 6 years - latvian

Study type and form	*Full time studies*
Duration in full years	*6*
Duration in month	*0*
Language	*latvian*
Amount (CP)	*240*
Admission requirements (in English)	*General secondary education or vocational secondary education*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	*Veterinarian*

Places of implementation

Place name	City	Address
Latvia University of Life Sciences and Technologies	JELGAVA	LIELĀ IELA 2, JELGAVA, LV-3001

Full time studies - 6 years - english

Study type and form	*Full time studies*
Duration in full years	*6*
Duration in month	*0*
Language	*english*
Amount (CP)	*240*
Admission requirements (in English)	*General secondary education or vocational secondary education. At least B2 level of English language skills*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	-
Qualification to be obtained (in english)	*Veterinarian*

Places of implementation

Place name	City	Address
Latvia University of Life Sciences and Technologies	JELGAVA	LIELĀ IELA 2, JELGAVA, LV-3001

III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)

1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction

Since the issuance of the accreditation page the English program has been opened.

Studies in English have been implemented starting from 2015/16. study year. Changes to the accreditation sheet were made in 2020, when after accidental actions of other faculties the English language was no longer indicated in the implementation of the study program.

The recommendations provided in the change procedure on April 24, 2020 were integrated into the study program.

There are no other significant changes.

1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.

Since the initial accreditation, the number of students in the Veterinary Medicine programme has not changed significantly. There is a tendency for student numbers to fluctuate in relation to the country's demographic situation and the number of potential students in a given enrolment period. The number of students is also closely related to the number of budget places allocated by the State, which in the first year is 50. Nevertheless, the competition for the state funded places has been 1.5 +/- 0.1 in recent years.

On the basis of the request in 2015, the programme is implemented in English in parallel with the implementation in Latvian. The demand for English language studies is gradually increasing, with demand increasing elsewhere in Europe and the world.

On 1 October 2021, 399 students studied in the veterinary medicine study programme, including 101 in English.

1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.

The admission requirements in the second level professional study programme Veterinary Medicine of the LLU do not differ significantly from the admission requirements of other programmes. In the future, it is envisaged that the admission requirements could be made more strict by introducing entrance exams, thus selecting the best students and reducing student exmatriculation in the first six months of studies.

Admission requirements for persons who have acquired secondary education since 2004

- Mandatory centralised examination in Latvian;
- Mandatory centralised examination in a foreign language. The CE rating of a foreign language may be replaced with the assessment of the international test, in accordance with Cabinet Regulation No. 543 of 29.09.2015;
- Mandatory centralised examination in mathematics;
- Mandatory centralised examination or annual mark of the certificate/diploma in chemistry;
- Mandatory centralised examination or annual mark of the certificate/diploma in biology.

Admission requirements for persons who completed secondary education before 2004 or were exempted from CE

- Mandatory annual grade of the attestation/diploma or centralised examination in Latvian;
- Mandatory annual grade of the attestation/diploma or centralised examination in a foreign language;
- Mandatory annual grade of the attestation/diploma or centralised examination in mathematics;
- Mandatory annual grade of the certificate/diploma or centralised examination in chemistry;
- Mandatory annual grade of attestation/diploma or centralised examination in biology

Requirements for international students: The program is open for applicants with completed secondary education, namely, you need to be eligible for university studies in your own country. You need to have at least "Satisfactory" grade in Biology or Chemistry, must be able to present good English knowledge (minimum - IELTS score 6.0, TOEFL score 547, TOEFL-iBT score 76) and need to pass an online entrance test in biology and chemistry.

The title, goals, objectives and qualifications of the study programme is in accoradance with the requirements of EAEVE, Directive 2005/36/EC and Directive 2013/55/EU and Cabinet Regulation of 26 August 2014 *Nr. 512 "Noteikumi par otrā līmeņa profesionālās augstākās izglītības valsts standartu" https://likumi.lv/doc.php?id=268761 (only in Latvian) and Veterinary law https://likumi.lv/ta/id/20436-veterinarmedicinas-likums (only in Latvian)*

III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)

2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.

The content of the study courses is based on the requirements of EAEVE, Directive 2005/36/EC and Directive 2013/55/EU, as well as on developments in the sector. Study course programmes are reviewed and updated at least once every two years, supplementing them with the most topical topics and issues to be examined. Research carried out by academic staff (teaching staff, researchers and leading researchers), methodical development, pilot results are an important contribution to the veterinary medicine sector and also to the development and improvement of the content of the study programme.

The content of study program and overall basic veterinary competence is currently laid down in different pieces of the EU legislation, namely

Directive 2005/36/EC amended by Directive 2013/55/EU (on the recognition of professional qualifications);

Directive 2010/63/EU (on the protection of animals used for scientific purposes);

Regulation 852/2004/EC (on the hygiene of foodstuffs) ;

Regulation 853/2004/EC (on specific hygiene rules for food of animal origin);

Regulation 854/2004/EC (on specific rules for the organisation of official controls on products of animal origin intended for human consumption) Regulation (EU) 2017/625 (on official controls)

Regulation 1099/2009/EU (on the protection of animals at the time of killing) as amended by Regulation (EU) 2017/625;

Regulation (EU) 2016/429 (on transmissible animal diseases and amending and repealing certain acts in the area of animal health); and

The content of all study courses is regularly reviewed in the light of EAEVE recommendations and SOPs

(https://www.eaeve.org/fileadmin/downloads/SOP/ESEVT_SOP_2019_adopted_by_the_32nd_GA_in_Zagreb_on_30_May_2019_As_amended_in_December_2020.pdf), which is the leading body in the field of veterinary medicine education in Europe andworldwide, as well as trends in science and practice in each specific field. The Faculty of Veterinary Medicine of the LLU is also a full member of EAEVE and therefore participates in decision-making and development of guidelines at different levels, based on trends in the sector both in the region and globally.

The topics included in the study courses are examined both within the framework of each particular course, at the institute level, as well as in the VMF Study and methodological commission.

2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.

Study course programmes are developed in accordance with the purpose, tasks and defined study

results of study programmes, which are determined by the internal regulatory documents of the LLU and binding documents of the relevant profession. The study programme includes: general education and theoretical study courses in the field; professional specialization courses in the field; training internship programmes and professional traineeship programmes coordinated with previously acquired study courses. The interlinking of mutual study courses is also ensured by the sequence of their acquisition, because successful acquisition of professional study courses is based on general and theoretical study courses in the field. Mapping of study courses clearly reflects the linking of each study course and compliance with the objective of the study programme and the results to be achieved.

For example, the results defined in the study course Infectious Diseases I are as follows: Skills - students know how to independently make a diagnosis in case of infectious diseases, to carry out treatment and preventive measures. Competencies - After completing the study course, students are able to analyse the obtained information about infections, are able to independently make a diagnosis and carry out treatment and preventive measures. Able to use the acquired knowledge in the search for radically new approaches and solutions in case of infectious diseases. In order for these results to be effectively achieved by students, there must be relevant prior knowledge, for example, in microbiology, epidemiology and pathology, otherwise the topics to be covered in the course are not perceptible to the student and it is not possible to achieve the results accordingly. At the same time, in the study course Infectious diseases II, the prior knowledge is defined only Infectious diseases I, without requiring any prior knowledge of microbiology or epidemiology.

Descriptions of study courses are attached in the Annex 3.2.2.1.

2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.

The study process is carried out in the form of lectures, seminars, practical / laboratory work, practices and independent work of students. For classes, the audience uses all the possibilities of LLU (multimedia projectors, microscopes connected to the computer and screen, also uses the possibilities of the e-learning environment when conducting classes in the form of video lectures online).

During the study period, students have the opportunity to participate in discussions, ask questions of interest both during and outside classes (during consultations, by e-mail, by calling, using the possibilities of the e-learning environment). Part of the study courses use problem situation resolution approaches or analysis of clinical and epidemiological cases, as well as analysis of clinical cases. Study materials (lecture materials in the form of presentations or recordings), tasks and descriptions of practical and laboratory work) and additional materials are also available to students in the e-learning environment. Materials are also available in the e-learning environment to promote self-directed learning (e.g. control questions, homework, etc.).

The criteria for the implementation and evaluation of studies are appropriate:

Cabinet of Ministers 2014. Regulation No. 512 of 26 August 2014, Regulations Regarding the State

Standard of Second Level Vocational Higher Education, and the Study Regulations of LLU (https://www.llu.lv/sites/default/files/2021-05/Studiju_nolikums_2021.pdf (LV)) and the principle of diversity of the types of examination used in the assessment is described in the study course programmes.

The assessment system and the assessment of student achievements are developed by the lecturer of the particular study course.

The criteria for successful completion of the study course are participation in seminar discussions, attendance of classes, development of practical / laboratory / independent works and successful defense of work. The study course also describes the conditions for obtaining an accumulative assessment, as well as the student's actions if the conditions for obtaining the assessment are not met. Before the course is taught, students can get acquainted with the assessment criteria and conditions in the course catalogue, as well as in the first lesson the teaching staff shall acquaint students with the conditions for successful completion of the study course. Information on the conditions of completion of the study course is also available to students in the e-studies system of the LLU.

In the e-studies system (estudijas.llu.lv), the teaching staff member(s) may create an evaluation book in which the assessment of an independent, practical, laboratory or seminary provided for in each study course is entered on a 10-point scale, counted/not included or in the form of points indicated in the study course. This allows the student to follow their studies achievement.

The methods of implementation and evaluation used in the study programme contribute to the achievement of the study courses and the objectives and results set by the programme.

2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.

Ten internships are planned in the study programme "Veterinary Medicine".

The internship "Practical farm", during one week is implemented during the second semester of studies in the LLU training and research farm "Vecauce". During the internship, students acquire knowledge about the functioning of agricultural sectors, technological processes of production, as well as the skills to recognize different agricultural sectors and organizations of activities in a multidisciplinary farm. At the end of the internship, students perform group work and present it and receive a test. The university provides students with an internship, transport, as well as the opportunity to stay at the hostel during the internship.

The first professional practice, which is directly related to veterinary medicine, is organized during the fourth semester of studies. The internship is organized after the acquisition of the Anatomy and Physiology study course. The traineeship is organized in the Clinical Institute of The Faculty of Veterinary Medicine in the Agricultural Animal Hospital and the Veterinary Clinic of the LLU (Clinic of Small Animals, Horses). Student work is organized in groups of up to five people. The main task of students is to improve practical skills in determining basic physiological parameters for animals of different species, to analyse the behaviour of animals, as well as to evaluate welfare indicators. During the internship, the work done must be recorded in an independent work report and

defended orally upon receipt of a test.

Clinical practice I is organized in the seventh semester of studies. The internship is organized at the LLU training and research farm "Vecauce". Practical training is organised individually, i.e. two or three students spend one week on the training and research farm. During the internship, students are trained by a farm veterinarian and a lecturer at the Clinical Institute. During the internship, students improve both theoretical knowledge and acquire practical skills (fixation of animals, conduct of clinical manipulations, prescribing of treatment), as well as carry out preventive measures in the herd. During the internship, the student must select one clinical case and perform an in-depth analysis of the case. The execution of the internship is evaluated with an unmarked test. The university provides students with an internship, transport, as well as the opportunity to stay at the hostel during the internship.

The practice of large animals I takes place in the eighth semester on the LLU training and research farm. During the internship, all 4th year students spend one week on the farm. Students are divided into groups and perform practical work in various fields under the guidance of teaching staff – clinical diagnostics, obstetrics and gynaecology, surgery of large animals and internal diseases according to schedule. The university provides students with an internship, transport, as well as the opportunity to stay at the hostel during the internship.

Large animal practice II is an external practice during which students of the eighth semester practice for three weeks under the guidance of certified veterinarians. The main objective of the internship is the acquisition of basic skills in the gynecological examination of livestock, artificial insemination and the provision of childbirth assistance. The internship manager offers students internships where internship tasks can best be completed. The places of internship chosen by students are listed in a single document, which is submitted to the dean. On the basis of an application, the Dean assigns students to practice by order. After the order is issued, a tripartite internship agreement is drawn up. During the internship, the student must draw up a diary of internship, as well as choose three clinical cases, which should be represented orally after the internship. The internship is evaluated with a mark.

Clinical practice II takes place in the ninth semester and is implemented in the small animal department of the Veterinary Clinic of the LLU. During the internship, students learn communication with animal owners, animal examination, disease diagnostics, treatment, keeping, feeding, care for sick animals, as well as disease prevention. The internship is organized during the learning process according to a schedule drawn up by the senior of the course. The internship is carried out 24/7 in order to provide students with the acquisition of non-taxable assistance. Clinical practice II is evaluated with a test. In order to receive the test, the student must select one clinical case during the internship and perform an in-depth analysis.

During the internship Clinical rotation I, students improve theoretical knowledge and acquire practical skills in animal work (livestock, horses, pets, exotic animals). During the tenth semester, students practice for six weeks under the guidance of certified veterinarians. Students have the opportunity to choose an internship. If the student himself or herself has not been able to find a place of internship, then it is done by the internship manager in agreement with the student and the potential internship manager. The selected internships are listed in a single document, which is submitted to the dean. On the basis of an application, the Dean assigns students to practice by order. After the order is issued, a tripartite internship agreement is drawn up. During the internship, students should select three clinical cases and perform an in-depth analysis and present one clinical case orally.

The practice "Food Hygiene and Inspection" is implemented in cooperation with the Food and Veterinary Service (PVD). students learn how to evaluate the quality and safety of products of

animal origin (meat, its products and fish and fishery products). The study course includes: meat hygiene and meat inspection course, within which animal slaughter technologies, slaughter hygiene, Good Manufacturing Practice (GMP) and self-control system (HACCP) in slaughterhouses are acquired. The basics of hygiene of fish and fishery products are included in this study course. During the internship, students practiced in different administrations and animal slaughterhouses of the PVD. Students are offered the PVD administration as a place of internship, which is located closer to the place of residence. At the end of the internship, students must submit an internship report. The assessment of the internship is a check mark.

Internships "Clinical Rotation II" and "Clinical Rotation III" are external practices that take place in the 11th and 12th semesters of studies. The internship is carried out at llu facilities – small animal clinic, horse clinic, farm animal clinic, mobile clinic, pathological anatomical examination center. During the internship, students are divided into six groups and each block practices for three weeks in several blocks:

1. Therapy of small animals. Place of internship – LLU Veterinary Clinic.
2. Small animal surgery. Place of internship – LLU Veterinary Clinic.
3. Equine veterinary medicine. Place of internship – LLU Veterinary Clinic.
4. Veterinary medicine for farm animals. Internship – MPS Vecauce.
5. Mobile clinic. Place of internship – farm animal department of the LLU Veterinary Clinic, trips to livestock and horse sheds.
6. Pathological anatomical examination. Place of internship – Pathology Centre of the Faculty of Veterinary Medicine.

The practice focuses on practical training. During the internship, the student must learn to communicate with the owner, learn the ability to independently examine animals of different species, perform clinical manipulations, perform additional diagnostic methods of the prime necessity, as well as prescribe treatment. In each internship block, the student receives a rating based on the execution of practical manipulations and analysis of clinical cases. At the end of the internship, students should develop a "Clinical Rotation Report Work". In the study course "Clinical rotation II" the student receives a test without a grade, but in the study course "Clinical rotation III" a test with a grade.

For international students, support for finding internships is as follows:

1. If a student wants to do an internship in Latvian veterinary clinics/farms, then VMF helps with finding a place of practice, i.e. with a veterinarian who is able to communicate in English.
2. When approving internship places, it is assessed whether the student is able to achieve the goal/tasks set in practice at the particular place of practice, i.e., based on the experience gained in previous years, assessing whether the veterinarian has violations of professional activity/ethics in cooperation with LVB plus assesses whether the particular veterinarian is able, for example, to provide the student with the clinical cases necessary for the practice.

The LLU SCC provides funding for foreign internships within ERASMUS+ mobility projects on the basis of individual contracts.

2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.

The development and defense of the final works of the sixth year is included in the study course "Clinical Rotation". The final works fall into two categories:

- analysis of clinical cases;
- scientific work.

Students have the opportunity to choose the direction and category in which the final work is prepared. Students who choose to work with the scientific direction conduct a study, which in most cases is started at least one year before the work is defended, while clinical case analysis works are developed during clinical rotation practice. The sixth-year student must choose a lecturer from the Faculty of Veterinary Medicine, under whose direction the final work is prepared.

The topic of the final work is chosen by agreement of the student with the work supervisor, guided by the student's in-depth interest in one of the veterinary fields, for example, clinical veterinary medicine, food hygiene etc.

The selected final working topics are appropriate for the specific time of preparation of the work, i.e. the topics of the final work of the analysis of clinical cases according to the clinical cases that students encounter during the internship, while scientific papers according to current events in the field, such as the final work on the dilation of the oesophagus in dogs, at the time when the country observed an increased prevalence of this disease. The percentage distribution of clinical cases and scientific work directions varies from year to year, however, it is equivalent, for example, in 2017, 51.7% of the final works were with the scientific direction and 48.3% of students chose to develop clinical case analysis papers. Of the works developed in 2017, 44.8% were related to livestock, but 55.2% to pet veterinary medicine.

The final work supervisor, reviewer, as well as the commission for defending the final works are involved in the evaluation of the final works. The Defence Commission consists of representatives of institutes of the Faculty of Veterinary Medicine. The supervisor and reviewer, having become acquainted with the final work, evaluate it with a mark from one to ten, while the main task of the commission is to evaluate the public defence of the final work and the answers to the questions asked by the reviewer and the commission.

The final evaluation of the final work is calculated by the arithmetic mean of the supervisor, reviewer and members of the commission. The students' scientific final papers, which are presented at the LLU Student Scientific Conference, receive an additional grade in the final assessment. Each year, the average score of final works is similar and is 8 to 8.5 points. It should be noted that students with the final works of the scientific direction receive higher ratings compared to clinical case analysis works.

2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.

When conducting student surveys, once a semester there is an opportunity to get information about student satisfaction in each particular course. According to the data of these surveys, corrective actions in study courses or discussions with the teaching staff are carried out if the assessment is less than 3 in the five-log system. The average assessment of teaching staff in 2019 was 4.2. Based on the recommendations of the advisory board and the comments of graduates, corrective actions are taken to improve the study process. For example, integrating the latest

insights and discoveries in the field of veterinary medicine, as well as introducing several study courses or sections in existing study courses, such as anesthesiology, herd health, exotic animal diseases, etc.

According to the results of the survey of graduates, it has to be concluded that in order for specialists to better meet the needs of the labour market, it is necessary to develop specialisation. In the future, the demand for veterinary services could grow most rapidly in the animal welfare sector. Other most topical niches are: exotic animals, control and prevention of the spread of diseases. According to industry experts, in the context of the market-dictated focus on the care of small animals, areas of vital importance for the development of society and the economy remain, such as veterinary and food quality, public health, epidemiology, environmental impact, agricultural productivity etc.

2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.

Students actively use Erasmus+, NOVA-BOVA (https://www.bova-university.org/), etc. mobility opportunities, such as scholarship programmes offered by countries or organisations for incoming and outgoing mobility.

Students mainly use NOVA-BOVA program scholarships for short-term mobility, for example, for attending courses offered by cooperation universities or short-term internships in cooperation countries, attracting funding from the Nordplus program. The courses attended by BOVA were *the Practical Animal Welfare Assessment (organizer* of the Estonian University of *Life Sciences)* attended by 17 students and *Oncology (organized* by the Latvian University of Life Sciences and Technologies) attended by 21 students, which was organized in cooperation with the universities of the NOVA network.

Within the framework of the Erasmus+ programme, students are more likely to learn clinical rotation in cooperation universities, furthermore, the LLU VMF offers opportunities to practice for students from partner universities for the development of practical skills and graduates for the acquisition of clinical experience.

In recent years, there has been an increased interest in opportunities to study in Latvia within the framework of the Erasmus+ programme, which is related to the development of the veterinary study programme in English. Every year, 1-2 students are enrolled in studies, as well as up to 10 students for clinical training. Until now, students from Lithuania, Estonia, Italy, Bulgaria, Greece, and Hungary practiced or studied in the program. Outgoing mobility was to Lithuania, Estonia, Finland, Sweden, Denmark, Hungary, Austria, Italy, Czech Republic, Spain, France, Portugal, Malta, Romania etc. countries.

Incoming and outgoing Erasmus+ mobility in the 2014/2015- 2019/2020 study years

Study year	Inbound mobility	Outbound mobility
2014./2015.	5	21
2015./2016.	3	20

2016./2017.	10	29
2017./2018.	5	29
2018./2019.	6	32
2019./2020.	1	21

Recognition of the acquired study courses takes place in accordance with the regulation of the LLU - rector's order on the procedures for academic recognition in the LLU.

The academic recognition of the study course *Practical Animal Welfare Assessment* was performed for 17 students, it was recognized as elective course, but the academic recognition of *Oncology* was performed for 21 students, which was also recognized as elective course.

In general, there is an increasing interest in student mobility opportunities, which is related to the increase in the number of students in the programme, as well as the internationalisation of the study programme.

For the most part, students have chosen to go abroad for internships in the last ten years. Studies in foreign higher education institutions are not actually used due to several factors, mainly due to differences in the amount of credits and differences in the study plan, which significantly complicates the alignment procedure and, as a result, students need to acquire the missing courses after returning to Latvia.

III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.

The study program Veterinary Medicine study process is carried out in the premises of the Faculty of Veterinary Medicine. The Faculty of Veterinary Medicine has its main complex of buildings in 13 blocks and auxiliary buildings (Kr.Helmanis Street 8, Jelgava, LV-3004, which is the registered office of the VMF). During the overview period 9 blocks (including the Veterinary Clinic of the LLU) are used in the study process, as well as in the training and research farm "Vecauce" in the cow house "Līgotnes" in the veterinary block (Vecauce parish in Auce municipality), training farm "Kalnenieki" (in Glūda parish, Jelgava municipality). For the provision of the study programme, both the joint LLU and the study and science technical base of other faculties are used: LLU Sports Centre (with swimming pool), Faculty of Agriculture, Faculty of Forests, Faculty of Technology, Faculty of

Information Technology, Faculty of Food Technology.

In general, the infrastructure of the study base complies with the requirements of EAEVE, providing both 24-hour veterinary care and other infrastructure items necessary for the Veterinary Medicine Programme, including a pathology center, microbiology laboratory, veterinary clinics etc.

The range of available literature is wide and is mainly in English as in Latvian almos no books are published in the field of veterinary medicine. Overall, the financial and technical support is satisfactory in the current circumstances.

A more detailed description of the infrastructure can be found in Part II, Point 3.1; Chapters 3.2 and 3.3.

3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).

III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)

4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.

In the implementation of the study programme, a steady increase in the number of teaching staff posts (full-time equivalent (FTE) can be observed during the reporting period. On 1 September 2013 it was 33.31 posts and on 1 September 2014 already 36.41 posts. In the 2015/2016 academic year, the VMF began to implement training for English flow students, which, despite the introduction of the workload calculation procedure of new lecturers introduced by the LLU, allowed to maintain the FTE at the level of previous years (35.49 posts). Reorganization of the study process (creation of small (6-8 students) practical work groups in separate study courses, transformation of external practices into internal ones etc.) and steady increase in the number of students (mainly on the annual increase in the number of students of the English flow) in subsequent years allowed to increase the number of FTE, reaching 48.11 in 2020. The increase in the number of teaching staff is mainly realized by increasing the number of lecturers (as of 1.09.2013 it was 11.74, but as of 1.09.2019 already 26.7 lecturer posts - i.e. 15 FTE more).

Both elected and unelected academic staff are involved in the implementation of the study programme. More than 25% of the lecturers involved in the implementation of the study field have a doctoral degree, which provides students with a vision based on scientific knowledge. Biographies of teaching staff (CV *in Europass format) and basic information on their qualifications (degree), status of election to a higher education institution, study program and study courses in the implementation of which they participate, certification of knowledge of the official language and foreign language* are attached in Annex 2.3.6.2. In the 2019/2020 academic year, 95 lecturers were involved in the implementation of the veterinary medicine study programme, the distribution of

which according to academic positions is lecturers 59.5%, assistant professors 15.8%, associate professors 17.8%, professors 7%. During the reference period, the proportional distribution of posts has changed (see Annex 2.3.6.2). In 2013, 11% of the VMF teaching staff were assistants, but since 2015 assistants who were employed only in academic work are no longer in the VMF. For academic staff of this level, the LLU provided for the national minimum wage, which is an inadequate payment for the higher veterinary education, responsible and difficult work necessary for the performance of these duties. Scientific assistants and leading researchers are involved in the study process in the teaching of certain specific topics.

The increase number of staff positions is reflected with high quality changes in the study process. Which, respectively, ensures that higher number of teaching staff are taking part in teaching courses more often. Involving more traching staff to one study course contributes to the increase of the study course quality, because it encourages a transfer of knowledge and solving more in-depth issues, based on the knowledge of the specialist of the respective field.

However, it has become increasingly difficult to attract new teaching staff in recent years, as the average pay for young veterinarians in the field (even without in-depth specialisation) is higher in comparison with the full-time salary of academic staff in the LLU. In order to rectify this, the university ensures, as far as possible, the upskilling of teaching staff in both pedagogical and research fields.

4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.

EAEVE Zagreb SOP (https://www.eaeve.org/esevt/indicators.html) clearly defines the need for the qualification of teaching staff in veterinary programmes, as well as the minimum and average values for both the full-time equivalent of teaching staff versus the number of students and other relevant parameters such as the ratio of the number of veterinarians to students, the ratio of the numberof auxiliary staff, etc.

Teaching staff are attracted to ensure the study process with appropriate academic qualifications, competence and experience in the field. The teaching staff involved in the conduct of specialized study courses usually also work in the field, which we consider to be a kind of positive practice. The teaching of narrow but no less important specialized study courses in medicine (cardiology, dentistry, ophthalmology, oncology, endocrinology, neurology, etc.c) does not provide full academic workload, but requires continuous upskilling and improvement of experience. Working at the LLU Veterinary Clinic and being part-time lecturers at the same time, these specialists can transfer their experience to students. Colleagues and scientists from partner universities have made a significant contribution to the training of veterinary students through incoming mobility program (see Annex 2.3.6.3). During the reference period, 17 foreign lecturers, scientists and veterinary practitioners gave lectures in various study courses. Special contributions have been made to the clinical training of students by: Prof. Charlotte Sandersen from the Faculty of Veterinary Medicine of the University

of Liège (Belgium), Professors Christoph Koch, Kata OrsolyaVeres-Nyeki and Karine Gendron from the Faculty of Veterinary Medicine of the University of Bern (Switzerland), Prof. Thierry Olivry of the State Veterinary College of North Carolina (USA) and others.

Teaching staff to improve qualifications in both pedagogical and research fields have the opportunity to participate in scientific work through the scientific laboratories of the LLU, to participate in industry organisations, ministerial working groups, to take advantage of the opportunities offered by various mobility programmes, as well as in the Univeristy didactics course organized by LLU, which the academic staff must attend at least once every six years.

The number, qualifications and skills of the teaching staff involved in the second level professional programme in veterinary medicine shall comply with the requirements of the study programme and Directive 2005/36/EC of the European Parliament and of the Council on the basis of the EAEVE expert visit report.

4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).

4.4. Information on the participation of the academic staff, involved in the implementation of the doctoral study programme, in scientific projects as project managers or prime contractors/ subproject managers/ leading researchers by specifying the name of the relevant project, as well as the source and the amount of the funding. Provide information on the reporting period (if applicable).

4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.

During the evaluation period from 2013 to 2020, 126 scientific publications can be found in the databases of SCOPUS and Web of Science, the authors or co-authors of which are academic staff involved in the implementation of the study programme. It should be stressed that a large part of them have been published in prestigious and high-quality international (peer-review) scientific journals.

In general, the involvement of teaching staff in scientific projects and publicity promotes the quality of the study programme and the acquisition of evidence-based veterinary medicine, for example, in

the study course infectious diseases I and II professor Kaspars Kovaļenko invites students to base analyses of clinical and epidemiological cases on scientific publications, as well as include materials from self published publications and research in the lectures. A similar system is used in practically all professional study courses.

4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).

In order to promote the acquisition of study courses and interlinking in several study courses, mandatory prior knowledge courses have been identified, for example, it is not possible to understand the topics to be taught in the study course Infectious diseases I, if knowledge of normal and pathological physiology and anatomy have not been acquired, but most importantly, basic issues related to microbiology, virology and mycology, as well as epidemiology. Of course, taking into account the relatively specific programme of the Faculty of Veterinary Medicine and the qualification of the necessary teaching staff, several aspects of cooperation are discussed both at the meetings of the Teaching Methodological Commission and at the meetings of the VMF council, but most often at the meetings of each institute. In total, 140 teaching staff were involved in the Programme Veterinary Medicine 2020/21, while 347 students were enrolled, thus forming a ratio of 2.47.

We value the cooperation of teaching staff as good, since Veterinary studies courses are very related and subordinate. Therefore, as already mentioned, the entire study programme (based on the EAVE guidelines and the EU occupational standard) is designed in such a way that students develop a broad, subordinate and fundamental vision and a common understanding of the processes in veterinary medicine through sequential courses.

It should also be noted that veterinary medicine is a very wide industry, since it includes medical issues for several species of animals. There is regular cooperation between teaching staff who teach general study courses and teaching staff specialising in veterinary medicine for certain animal species. For example, study courses such as Pharmacology, Pharmacotherapy and Toxicology, Radiology, Operative Surgery, Anaesthesiology and Emergency Assistance on specific species attract teaching staff specialising in equine medicine, ruminant medicine and the like to conduct lectures and practical work. It provides high-quality and mutually developed information for students.

Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	statistics of students.docx	Studējošo statistika.docx
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of the study programme with the State Education Standard	3.2.1.1._ENG.docx	3.2.1.1_LV.docx
Compliance of the qualification to be acquired upon completion of the study programme with the professional standard (if applicable)	Compliance annex 3.docx	Atbilstība_profesijas_standartam.docx
Compliance of the study programme with the specific regulatory framework applicable to the relevant field (if applicable)	Compliance with the specific regulatory framework of the relevant field.docx	Studiju programmas atbilstību atbilstošās nozares specifiskajam normatīvajam regulējumam.docx
Mapping of the study courses/ modules for the achievement of the learning outcomes of the study programme	Studiju kursu kartejums_LV_ENG.xlsx	Studiju kursu kartejums_LV_ENG.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	STUDY PLAN_ENG.xls	STUDIJU PLĀNS_LV.xls
Descriptions of the study courses/ modules	Course description_ENG.pdf	Kursu apraksti_LV.pdf
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Diploma and supplement .pdf	Diploma and supplement .pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.		
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education		
Sample (or samples) of the study agreement	Study_Agreement_LV_EN_2021.pdf	Studiju_ligums_2021.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.		

Veterinary Medicine (51640)

Study field	*Veterinary Medicine*
ProcedureStudyProgram.Name	*Veterinary Medicine*
Education classification code	*51640*
Type of the study programme	*Doctoral study programme*
Name of the study programme director	*Aivars*
Surname of the study programme director	*Bērziņš*
E-mail of the study programme director	*aivars.berzins@llu.lv*
Title of the study programme director	*Dr.med.vet.*
Phone of the study programme director	
Goal of the study programme	*The aim is to provide the highest level of theoretical knowledge in the various subsectors of the veterinary science sector, to prepare a new generation of scientists complying with international veterinary requirements for solving scientific problems in veterinary medicine and for the renewal of scientific and academic staff.*
Tasks of the study programme	*The main tasks of the programme are:* *- To promote scientific (fundamental and applied) research in the leading veterinary subsectors;* *- To create opportunities for doctoral students to acquire theoretical and experimental research methodology that meets international standards in veterinary medicine;* *- To promote the ability of doctoral students to independently formulate, study, analyse and solve certain veterinary problems;* *- To promote the ability of doctoral students to analyse and evaluate opportunities to integrate into solving scientific projects at national and international level;* *- To create opportunities for doctoral students with appropriate levels of reporting to participate in international scientific forums;* *- To establish cooperation between kinship scientific institutions in the field of scientific management, consultation, experimental work methodology and implementation;* *- The implementation of the doctoral study programme is carried out with a developed and submitted doctoral thesis, which allows obtaining an internationally comparable scientific doctoral degree in veterinary medicine.*

Results of the study programme	*Knowledge:* *• Understands the most current scientific knowledge and organization of the scientific work process, orientates among sub-sectors of veterinary medicine and terminology used in its foreign language, is familiar with and is able to use the latest research methodology and current research methods* *Skills* *• Is able to independently evaluate and choose the most appropriate methods necessary for scientific research. Is able to perform fundamental and applied research, collect, analyse, critically evaluate and systematize information obtained in research. Is able to independently process the data obtained in research using data analytical methods* *• Independently able to ensure publication of their scientific results, findings, conclusions and new discoveries in international scientific journals. The skills to participate in international research projects have been developed, as well as basic knowledge in the preparation of scientific projects* *Competences* *• Is able to critically analyse research results and their use in the creation of new and innovative ideas. Able to promote the creation of new ideas for interdisciplinary projects in the research process* *• Is able to independently plan and participate in the preparation, implementation of scientific projects and the process of preparation of project reports. Is also able to participate in the implementation of international projects and consortia*
Final examination upon the completion of the study programme	*Doctoral thesis (PhD 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)	*Qualification of veterinarian in accordance with the six year second level professional higher education study programme Veterinary Medicine or an equivalent programme*
Degree to be acquired or professional qualification, or degree to be acquired and professional qualification (in english)	*Doctoral degree Doctor of Science (Ph.D.) in Veterinary Sciences*
Qualification to be obtained (in english)	-

Places of implementation

Place name	City	Address

Latvia University of Life Sciences and Technologies	JELGAVA	LIELĀ IELA 2, JELGAVA, LV-3001

III - DESCRIPTION OF THE STUDY PROGRAMME (1. Indicators Describing the Study Programme)

1.1. Description and analysis of changes in study programme parameters that have taken place since the issue of the previous accreditation certificate of study direction or the license of study programme if study programme is not included in the accreditation page of the study direction

Significant changes in the doctoral study programme "Veterinary Medicine" have not taken place since the previous accreditation of the study field. On the basis of Cabinet Regulation No. 522 of 14 August 2018 , Amendments to Cabinet Regulation No. 1001 of 27 December 2005, Procedures and Criteria for the Award of a Doctoral Degree,' the Cabinet of Ministers 2018. Regulations No. 49 of 23 January 2018, Regulations Regarding The Branches and Sub-sectors of Science of Latvia and Cabinet Regulation No. 523 of 14 August 2018, Amendments to Cabinet Regulation No. 202 of 16 April 2013, Procedures for issuing State-recognised documents certifyinghigher education, shall be granted a Doctor of Science (Ph.D.) starting from 2020 in the field of veterinary science.

1.2. Analysis and assessment of the statistical data on the students of the respective study programme, the dynamics of the number of the students, and the factors affecting the changes to the number of the students. The analysis shall be broken down in the different study forms, types, and languages.

The amount of students studying the programme “Veterinary Medicine” has remained stable during the period from 2013 to 2020. However, it should be stressed that due to the limited duration of doctoral studies, a large proportion of doctoral students are forced to exmatriate until the doctoral thesis is defended. For the most part, the time from exmatriculation to the defence of the doctoral thesis is used for the completion of complex experimental research papers, preparation of the last scientific publications and preparation of the doctoral thesis itself.

In 2020, 15 doctoral students and doctoral students studied in the doctoral study programme incl. 3 new doctoral students. Since the academic year 2013/2014, the number of students (n=17) has not changed significantly. The number of doctoral students in relation to the number of undergraduate graduates is 1:2, which indicates a proportionally significant number of doctoral students in the field of veterinary science. Currently, the doctoral study programme "Veterinary Medicine" is not implemented in English, however, there are a number of special courses of the program, which are implemented in cooperation with other universities of northern Europe and the Baltic States within the framework of the NOVA-BOVA cooperation network.

Changes in the number of doctoral students in the doctoral study program are also closely related to the available funding for science base funding and funding for research projects. Due to the fact that experimental work in veterinary medicine is financially capacious, which is also the basis for the development of a scientific work / doctoral thesis, their implementation is not possible if stable funding for scientific activities is not available.

1.3. Analysis and assessment of the interrelation between the name of the study programme, the degree or professional qualification to be acquired or the degree and professional qualification to be acquired, the aims, objectives, learning outcomes, and the admission requirements.

The doctoral study programme "Veterinary Medicine" is the only programme of its kind in Latvia. The scientific degree to be obtained and the qualification obtained during the programme correspond to the doctoral programmes of other EU countries and their content. This compliance has also been recognised during an accreditation visit to the EU Association of Veterinary Universities (EAEVE).

The interrelation between the title of the study program, the degree to be obtained, the goals and tasks, the study results, as well as the admission requirements is described in more detail in the self-evaluation report submitted to the EU Association of Veterinary Higher Education Institutions (EAEVE). See the EAEVE report (Study field description section 1.1.)

III - DESCRIPTION OF THE STUDY PROGRAMME (2. The Content of Studies and Implementation Thereof)

2.1. Assessment of the relevance of the content of the study course/ module and the compliance with the needs of the relevant industry and labour market and with the trends in science. Provide information on how and whether the content of the study course/ module is updated in line with the development trends of the relevant industry, labour market, and science. In case of master's and doctoral study programmes, specify and provide the justification as to whether the degrees are awarded in view of the developments and findings in the field of science or artistic creation.

The credit point amount of the doctoral study programme "Veterinary Medicine" is 120 KP (180 ECTS), 100 KP are intended for research - presentation of research results in scientific conferences, publication of research results, as well as preparation and drawing up of the doctoral thesis, but respectively 20 KP - for theoretical studies. Theoretical studies include a range of free choice courses, which are usually coordinated by the doctoral student with his supervisor and/or the director of the doctoral programme. Considering that in the veterinary science sector there is an increasing focus on bioethics, compliance with the 3Rs principles, animal welfare, the use of experimental animals or the use of alternative methods in research, doctoral students and their doctoral thesis leaders choose the most appropriate special courses for the doctoral thesis.

Participation of doctoral students in special courses, the topics of which are related to modern requirements for the use of experimental / experimental animals in scientific research, modern veterinary epidemiology, biostatistics and modeling, is especially supported and implemented in cooperation with other foreign universities, in line with modern scientific trends and general

requirements from the veterinary medicine industry.

The development of the doctoral thesis is closely related to experimental work, publication of research results in international scientific journals and their presentation in international scientific events, which is equivalent to doctoral study programmes of veterinary higher education institutions of other EU countries.

2.2. Assessment of the interrelation between the information included in the study courses/ modules, the intended learning outcomes, the set aims and other indicators, the relation between the aims of the study course/ module and the aims and intended outcomes of the study programme. In case of a doctoral study programme, provide a description of the main research roadmaps and the impact of the study programme on research and other education levels.

The research directions identified in the doctoral study programme "Veterinary Medicine" are closely linked to the scientific development strategy of the LLU and the concept of the recently developed doctoral school. The research directions are also linked to the research or final work implemented in the programme of basic veterinary studies in which research is carried out.

When evaluating the research projects implemented in the basic study program of veterinary medicine, in which students are involved and their connection with the doctoral program, it should be emphasized that many students of the basic study program also choose to continue their research work in doctoral studies.

2.3. Assessment of the study implementation methods (including the evaluation methods) by providing the analysis of how the study implementation methods (including the evaluation methods) used in the study courses/ modules are selected, what they are, and how they contribute to the achievement of the learning outcomes of the study courses and the aims of the study programme. Provide an explanation of how the student-centred principles are taken into account in the implementation of the study process.

The study process is carried out in the form of lectures, seminars, practical / laboratory works as well as self-directed studies. For classes, the students use all the possibilities of LLU (multimedia projectors, microscopes connected to the computer and screen, also uses the possibilities of the e-learning environment when conducting classes in the form of video lectures online).
During the study period, students have the opportunity to participate in discussions, ask questions of interest both during and outside classes (duringconsultations, by e-mail, by calling, using the possibilities of the e-learning environment). Study materials (lecture materials in the form of presentations or recordings), tasks and descriptions of practical and laboratory .c.) and additional materials are also available to students in the e-learning environment. Materials are also available in the e-learning environment to promote self-directed learning (e.g. control questions, homework, .c).

The criteria for successful completion of the study course are participation in seminar discussions, attendance of classes, development of practical / laboratory / independent works and successful .c.

The study course also describes the conditions for obtaining an accumulative assessment, as well as the student's actionsif the conditions forobtaining the assessment are not met. Before teaching the course, students can get acquainted with the assessment criteria and conditions in the course catalogue, as well as in the first lesson the teaching staff shall acquaint students with the conditions for successful completion of the study course. Information on the conditions of completion of the study course is also available to students in the e-studies system of the LLU.

In the e-studies system (estudijas.llu.lv), the teaching staff member(s) may create an evaluation book in which the assessment of an independent, practical, laboratory or seminary provided for in each study course is entered on a 10-point scale, counted/not included or in the form of points indicated in the study course. This allows the student to follow their studies.

The methods of implementation and evaluation used in the study programme contribute to the achievement of the study courses and the objectives and results set by the programme.

2.4. If the study programme entails a traineeship, provide the analysis and assessment of the relation between the tasks of the traineeship included in the study programme and the learning outcomes of the study programme. Specify how the higher education institution/ college supports the students within the study programme regarding the fulfilment of the tasks set for students during the traineeship.

2.5. Analysis and assessment of the topics of the final theses of the students, their relevance in the respective field, including the labour market, and the evaluations of the final theses.

Doctoral theses are based on the research and project topics needed in the field. Taking into account the evaluation of the doctoral thesis process and topics both at the institute level and at the level of the faculty council, the topics are topical and dissertable.

Some of the topics of doctoral theses are also related to LZP, ZM, etc. implemented by LLU VMF. research projects funded by the institutions.

Maira	Mateusa	Nozīmīgāko pārtikas parazitāro vienšūņu (Cryptosporidium spp. un Giardia duodenalis) sastopamība Latvijas lauksaimniecības dzīvniekos un to emisija apkārtējā vidē	Foodborne protozoan (Cryptosporidium spp. and Giardia duodenalis) prevalence in meat producing animals of Latvia and their emission in environment	Dr.biol. Gunita Deksne; Dr.med.vet. Margarita Terentjeva

Linda	Valkovska	Zoonozes Q drudža ierosinātāja (Coxiella burnetii) sastopamība pienā, piena produktos un vidē Latvijā	Occurrence of zoonosis Q fever causing bacteria (Coxiella burnetii) in milk, milk products and environment in Latvia	Dr. biol. Lelde Grantiņa-Ieviņa; Dr. med. vet. Kaspars Kovaļenko
Linda	Gatiņa	Brūču dzīšanas morfoloģija pēc dažādu audu šķelšanas metožu pielietošanas trušiem	Wound healing morphology after use of various tissue catting methods in rabbits	Dr. med. vet. Dace Bērziņa; Dr.med.vet. Inga Pigiņka-Vjačeslavova
Lelde	Tītmane	Piena lopkopībā sastopamo Mycoplasma spp. izolēšana un antigēno īpašību noteikšana	The isolation and antigenic property determination of Mycoplasma spp. in dairy farming	Dr. med. vet. Aija Mālniece; Dr. med. vet. Kaspars Kovaļenko
Kristīne	Lamberga	Āfrikas cūku mēra kontroles un apkarošanas pasākumu efektivitāte inficētajos mājas cūku ganāmpulkos Latvijā	Efficiency of ASF control and eradication measures in affected domestic pig populations in Latvia	Dr. Arvo Viltrop; Dr.med.vet. Aivars Bērziņš
Gundega	Mūrniece	Kaķu koronavīrusu epidemioloģija Latvijā un to izraisīto slimību ārstēšanas iespējas	Feline coronavirus epidemiology in Latvia and treatment options of their caused diseases	Dr. med. vet. Kaspars Kovaļenko
Daira	Viškere	Biofotonikas iekārtu pielietojums ādas un zemādas audzēju struktūras un morfoloģijas novērtēšanai suņiem un kaķiem	The study of canine and feline skin and subcutaneous tumor structure and morphology by biophotonics techniques	Dr. med. vet. Ilze Matīse-Van Houtana; PhD Cugmaz Blaž

Alīna	Kļaviņa	Atsevišķu Latvijas florai raksturīgu fitolīdzekļu pretparazitārā ietekme uz atgremotājdzīvnieku gremošanas sistēmā parazitējošiem strongilīdiem	The antiparasitic effect of some specific to Latvian flora phytolages on gastrointestinal strongylus of ruminats	Dr. med. vet. Dace Keidāne; Dr. med. vet. Līga Kovaļčuka

2.6. Analysis and assessment of the outcomes of the surveys conducted among the students, graduates, and employers, and the use of these outcomes for the improvement of the content and quality of studies by providing the respective examples.

The survey of employers and graduates within the framework of the doctoral programme Veterinary Medicine has not been carried out, considering the small number of students the specific and narrow topics and the high demand for persons with a doctoral degree in veterinary medicine. Discussions with the Ministry of Agriculture, the Food and Veterinary Service and other institutions involved have found that the thesis topics are topical, only the doctoral process can be improved by extending the doctoral study period, since many studies in veterinary medicine cannot be carried out within 3 years.

Additional feedback influencing the choice of thesis topics is based on the available funding for science and on scientific projects to be implemented in faculties or partner institutions, in which the doctoral thesis defended is often one of the results to be achieved. The second factor influencing the topic is the economic demand for specific research topics and innovations in relevant fields, such as biointegrable implants developed in cooperation with the Institute of Organic Synthesis, zoonotic research carried out in cooperation with BIOR and etc.

2.7. Provide the assessment of the options of the incoming and outgoing mobility of the students, the dynamics of the number of the used opportunities, and the recognition of the study courses acquired during the mobility.

International mobility is an important precondition for the development of scientific careers. Doctoral students participate in international mobility programs for gaining international experience in foreign institutions, attend and participate in the international conferences with reports.

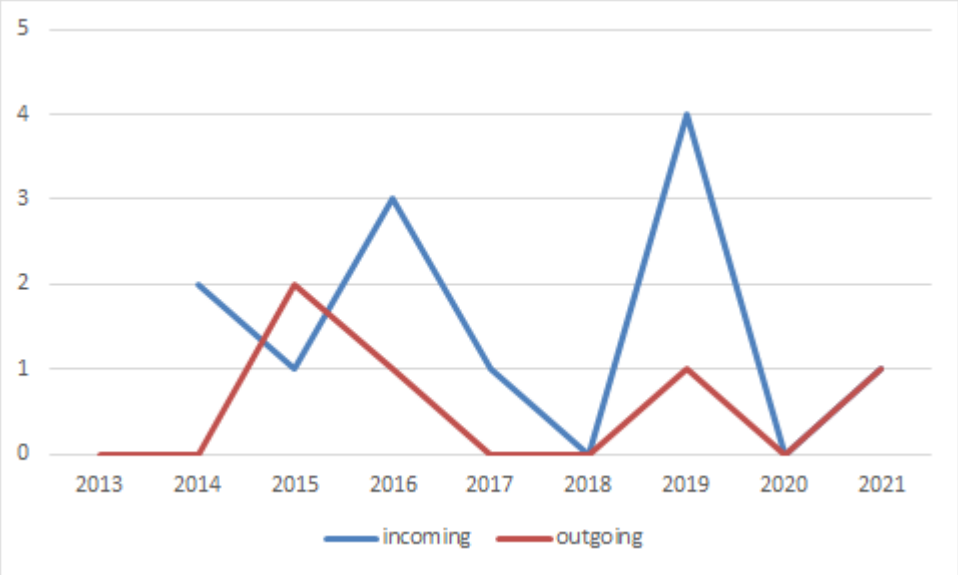
International mobility is administered by the LLU International Cooperation Center, and doctoral students are offered opportunities to participate in Erasmus +, the cooperation network NOVA-BOVA, as well as to use the Nordplus scholarship for short-term visits to the Baltic and Nordic countries.

LLU doctoral students usually use short-term visits within the framework of the Erasmus + program, practically learning the methodology and performing experimental work in foreign universities. Mobility takes place at partner universities, and doctoral students have taken the opportunity to improve their practical skills and develop their doctoral methodology at the University of Liège (Belgium), the University of Helsinki (Finland), etc. Incoming mobility during the reporting period

came from Kazakhstan and Finland, and took place within the framework of the national mobility support program and projects.

One doctoral student participated in Erasmus + IP courses "Topical Food Zoonoses and Public Health", which were organized by the lecturers of the study field in cooperation with partner universities in the Baltic States, the Nordic countries and Germany.

Dynamic of incoming and outgoing PhD students mobility is shown in the Figure below:



Mobility to and from LLU see Annex 6.3.2.7.

III - DESCRIPTION OF THE STUDY PROGRAMME (3. Resources and Provision of the Study Programme)

3.1. Assessment of the compliance of the resources and provision (study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision) with the conditions for the implementation of the study programme and the learning outcomes to be achieved by providing the respective examples. Whilst carrying out the assessment, it is possible to refer to the information provided for in the criteria set forth in Part II, Chapter 3, sub-paragraphs 3.1 to 3.3.

The study program Veterinary Medicine study process is carried out in the premises of the Faculty of Veterinary Medicine. The Faculty of Veterinary Medicine has its main complex of buildings in 13 blocks and auxiliary buildings (Kr.Helmanis Street 8, Jelgava, LV-3004, which is the registered office

of the VMF). During the overview period 9 blocks (including the Veterinary Clinic of the LLU) are used in the study process, as well as in the training and research farm "Vecauce" in the cow house "Līgotnes" in the veterinary block (Vecauce parish in Auce municipality), training farm "Kalnenieki" (in Glūda parish, Jelgava municipality). For the provision of the study programme, both the joint LLU and the study and science technical base of other faculties are used: LLU Sports Centre (with swimming pool), Faculty of Agriculture, Faculty of Forests, Faculty of Technology, Faculty of Information Technology, Faculty of Food Technology.

In general, the infrastructure of the study base complies with the requirements of EAEVE, providing both 24-hour veterinary care and other infrastructure items necessary for the Veterinary Medicine Programme, including a pathology center, microbiology laboratory, veterinary clinics etc.

The range of available literature is wide and is mainly in English. Overall, the financial and technical support is satisfactory in the current circumstances.

In doctoral studies students also use infrastructure, which can also be found in various LLU partner institutions and derivative institutions, such as BIOR, the University of Latvia, etc., as well as in laboratories and institutions outside Latvia, for example, the Estonian University of Life Sciences. A more detailed description of the infrastructure can be found in Part II, Point 3.1; Chapters 3.2 and 3.3.

3.2. Assessment of the study provision and scientific support, including the resources provided within the cooperation with other science institutes and institutions of higher education (applicable to the doctoral study programmes).

A large proportion of doctoral theses are also developed in cooperation with other Latvian universities or scientific institutes, it plays an important role in the development of doctoral theses. The Institute of Food Safety, Animal Health and Environment "BIOR", the Latvian Institute of Organic Synthesis, the Latvian Biomedical Study and Research Centre (BMC), etc. has experimental bases in the use of laboratory infrastructure. WGS, DGS equipment), this cooperation is positive for both parties taking into account that the research in the field of veterinary medicine becomes more complex and interdisciplinary.

Examples: doctoral theses are currently being developed, for which the supervisors of doctoral theses represent both LLU VMF and other scientific institutions in Latvia (OSI, Z / I "BIOR") and abroad. In addition, the infrastructure of both LLU VMF and the above-mentioned scientific institutes is used in the development of the experimental part of the Doctoral Thesis. Doctoral students: Kristīne Lamberga (LLU VMF, BIOR), Gundega Mūrniece (LLU VMF, BIOR), Linda Valkovska (LLU VMF, BIOR), Gundega Štelfa (LLU VMF, OSI), etc. Number of studies are carried out in cooperation with private companies, either in connection with the collection of samples or in the approbation of technologies.

III - DESCRIPTION OF THE STUDY PROGRAMME (4. Teaching Staff)

4.1. Analysis and assessment of the changes to the composition of the teaching staff over the reporting period and their impact on the study quality.

Teaching staff from the Faculty of Forests, the Faculty of Information Technology, the Faculty of Food Technology and the Faculty of Agriculture are involved in the implementation of the study programme, thus ensuring the achievement of qualitatively set study results.
There have been no significant changes in the composition of the academic staff during the assessment period. It should be stressed that a number of special courses are carried out abroad, or by inviting foreign teaching staff to Latvia. Foreign teaching staff are assigned to a specific course or part thereof (seminar format), which is organized at the Faculty of Veterinary Medicine of the LLU or in one of the partner institutions, e.g. State Scientific Institute "BIOR". Data on the number of staff and their dynamics are set out in the Annex 5.4.1.1.

4.2. Assessment of the compliance of the qualification of the teaching staff members (academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants) involved in the implementation of the study programme with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. Provide information on how the qualification of the teaching staff members contributes to the achievement of the learning outcomes.

See information from the CV of academic staff. The qualification of teaching staff is ensured using the procedure established by the university: regular refresher courses, including pedagogy for which certificates of completion are submitted to the university administration.

The scientific qualification of the academic staff is confirmed by their scientific publications, involvement in scientific projects, which in turn promotes the involvement of doctoral students in scientific work. Detailed information is included in the CVs of the teaching staff, lists of scientific publications and scientific projects.

4.3. Information on the number of the scientific publications of the academic staff members, involved in the implementation of the doctoral study programme, as published during the reporting period by listing the most significant publications published in Scopus or WoS CC indexed journals. As for the social sciences, humanitarian sciences, and

the science of art, the scientific publications published in ERIH+ indexed journals may be additionally specified (if applicable).

During the evaluation period from 2013 to 2020, the publications of the academic staff involved in the implementation of the doctoral study programme are listed in the Annex. A total of 126 scientific publications can be found in the SCOPUS and Web of Science databases for this period. It should be stressed that a large part of them have been published in prestigiousand high-quality international (peer-review) scientific journals. See. Annex. No 2.4.1.

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).

Academic staff involved in the doctoral study programme "Veterinary Medicine" participate in scientific projects at both European and national level, which is also the basis for the involvement of young doctoral students in active scientific work and implementation of scientific projects. A large part of the projects are suitable for applied scientific projects, the tasks of which include the needs of the sector and a close component of research and knowledge and technology transfer. Staff participate in projects such as ERDF, LZP, PPP, EU COST etc. see annex 5.4.4.1.

4.5. Provide examples of the involvement of the academic staff in the scientific research and/or artistic creation activities both at national and at international level (in the fields related to the content of the study programme), as well as the use of the obtained information in the study process.

The whole process of scientific work involves planning research, preparing scientific projects (see annex 5.4.4.1), their implementation and publishing, and presenting research results in international scientific forums involving both academic staff and doctoral students. The acquired practical and theoretical knowledge is constantly applied in the study process, which is an integral part thereof.

For example, assistant professor Ilga Šematoviča, assistant professor of animal reproduction in the undergraduate course, provides students with information about the technologies acquired in the project "Conservation of cow genetic resources in Latvia using embryo transfer and related biotechnologies", their application in practice. In the undergraduate course Infectious Diseases I and II prof. Kaspars Kovaļenko gives students an insight into the research in the field of infectious diseases carried out in Latvia, as well as in research involves both undergraduate students doctoral students. At the moment, several research groups have formed in the VMF, for example, the Infectious Diseases Research Group, which involves 12 teaching staff and 5 laboratory assistants, as well as about 20 students from different undergraduate courses. There is also a clinical research

group involving the following teaching staff: Prof. L.Kovaļčuka, Prof. I.Dūrītis, doc. A.Vekšins, etc. the main research objects and topics of this group are related to pharmacology, visual diagnostics and research and implementation of innovative diagnostic and treatment methods.

4.6. Assessment of the cooperation between the teaching staff members by specifying the mechanisms used to promote the cooperation and ensure the interrelation between the study courses/ modules. Specify also the proportion of the number of the students and the teaching staff within the study programme (at the moment of the submission of the Self-Assessment Report).

The teaching staff cooperate closely with the teaching staff of other faculties in the implementation of the programme, both in the development of the research methodology, in the analysis of data, and in the doctoral thesis process as a whole. Also, several study courses are served outside the faculty.

There are practically no specific cooperation mechanisms for promoting cooperation within the framework of veterinary medicine. There is an opportunity to cooperate with specialists in various fields or scientists to solve individual issues. The methodology of the research part of the doctoral thesis is also reviewed at the meetings of each responsible institute and also at the meeting of the VMF Council, where the faculty teaching staff can provide advice or additions to the improvement of the methodology.

LLU professors I.Arhipova or L. Paura can be involved in statistical processing of data, while the Faculty of Information Technology can be involved in the search for IT solutions, etc.

Currently, 15 students are studying in the Doctoral Programme in Veterinary Medicine, while 35 teaching staff are involved in the process, including doctoral thesis supervisors and consultants.

Student/tecaher ratio is 0.42.

Annexes

III. Description of the Study Programme - 1. Indicators Describing the Study Programme		
Compliance of the joint study programme with the provisions of the Law on Institutions of Higher Education (table)		
Statistics on the students over the reporting period	5.1.2.1. eng.docx	5.1.2.1..docx
III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof		
Compliance of 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 (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	5.2.5.1_LV_ENG.xlsx	5.2.5.1_LV_ENG.xlsx
Curriculum of the study programme (for each type and form of the implementation of the study programme)	Studiju programmas plāns_plan of study programe.xlsx	Studiju programmas plāns_plan of study programe.xlsx
Descriptions of the study courses/ modules	5.2.5.3._ENG.pdf	5.2.5.3_LV.pdf
Description of the Study Direction - Other mandatory attachments		
Sample of the diploma to be issued for the acquisition of the study programme.	Doktora_diploms_Veterinārmedicīna_EN.pdf	Doktora_diploms_Veterinārmedicīna_LV.pdf
Description of the Study Programme - Other mandatory attachments		
Document confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
Confirmation of the higher education institution/ college that the teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language according to European language levels (see the levels under www.europass.lv), if the study programme or any part thereof is to be implemented in a foreign language.		
If the study programmes in the study direction subject to the assessment are doctoral study programmes, a confirmation that at least five teaching staff members with doctoral degree are among the academic staff of a doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field or sub-field of science, in which the study programme has intended to award a scientific degree.	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
If academic study programmes are implemented within the study direction, a document confirming that the academic staff of the academic study programme complies with the provisions set out in Section 55, Paragraph one, Clause three of the Law on Institutions of Higher Education	LLU_apliecinajums_Veterinarmedicina_EN.docx	LLU_apliecinajums_Veterinarmedicina.edoc
Sample (or samples) of the study agreement	Study_Agreement_LV_EN_2021.pdf	Studiju_ligums_2021.pdf
If academic study programmes for less than 250 full-time students are implemented within the study direction, the opinion of the Council for Higher Education shall be attached in compliance with Section 55, Paragraph two of the Law on Institutions of Higher Education.	dok_stud_progr_Veterinārmedicīna_AIP atzinums_EN.docx	dok_stud_progr_Veterinārmedicīna_AIP_atzinums.edoc