#### LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

# **VETERINARY ACADEMY**



# STUDY FIELD OF ACULTURE SCIENCE

# SECOND CYCLE PROGRAMME ANIMAL HUSBANDRY TECHNOLOGY (National code – 621D73001)

# THE SELF-EVALUATION REPORT

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Kaunas

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# KEY INFORMATION OF THE STUDY PROGRAMME

Title of the study programme	Animal Husbandry Technology
National code	621D73001
Study area	Biomedical sciences
Study field (group)	Agriculture sciences
Study field (branch)	Animal Husbandry
Higher education type	University
Circle (type) of study	Masters
Study mode(duration in years)	Full-time (2 year); Continuous (2.5 year)
Scope of the programme in credits	105 ECTS
Qualification awarded	Master's degree in Agricultural sciences.
The Registration date of study programme	Since May19 1997
The programme language	Lithuanian

# SELF-EVALUATION GROUP OF THE STUDY PROGRAMME

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			presentation the faculty.
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3.	Prof. Rasa Želvytė	Member	The programme aims and learning outcomes
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8.	Stud. Aistė Katolikaitė	Member	The teaching staff
9.	Vilma Šašytė	Member	The curriculum design
10.	Aida Grockienė	Member	Study process and students' performance
11.	Ilona Kauzonienė	Member	Programme management

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# **ABBREVIATIONS**

AHT - The animal husbandry technology;

AIKOS - Open Information, Counselling and Guidance System;

CC - Career Centre;

CIRS - Centre of International Relations and Study;

ECTS – European Credit Transfer and Accumulation system;

FAHT - Faculty of Animal Husbandry Technology;

FIRSTCLASS - university intranet;

LAHI - Lithuanian Animal Husbandry Institute;

LAMABPO - Association of Lithuanian Higher Education Institutions;

LIC - Library and information centre;

LR - Republic of Lithuania;

LUHS - Lithuanian University of Health Sciences;

LUHSSIS - Lithuanian University of Health Sciences study information system;

LVA Lithuanian Veterinary Academy;

LVI - Lithuanian Veterinary Institute;

MA - Medical Academy;

SA – Student Council;

SKVC - Centre for Quality Assessment in Higher Education;

SPC - Study Programme Committee;

SSS - Students 'Scientific Society;

TBA - Interlibrary loan directory;

VA – Veterinary Academy;

VU – Vilnius University.

# INTRODUCTION

- 1. Lithuanian University of Health Sciences (hereinafter referred to as LUHS) is a state university established on the 30 of June in 2010 by the resolution of Seimas of the Republic of Lithuania, according to which two institutions of higher education Kaunas University of Medicine and Lithuanian Veterinary Academy were merged. LUHS is the largest university of biomedical study area in Lithuania.
- 2. The University has collegial management bodies the Council, Senate and a sole management body the rector. The university encompasses academies, faculties, research institutes, departments, rehabilitation centre, veterinary clinics, institutes, science laboratories, Centre for Practical Training and Experimentation, and other structural and functional divisions required for study, research, healthcare, social, cultural and other needs. Academy is the main division of the university. The university comprises Medical Academy and Veterinary Academy. Veterinary academy consists of Veterinary Faculty and Faculty of Animal Husbandry Technology. Over 7800 students (including 761 foreign students from over 55 countries) study in more than 40 programmes offered by the university.
- 3. Teaching staff of LUHS consists of teachers, researchers, specialists of human and animal health care, administration and other employees maintaining activity of the university. In LUHS 168 professors, 243 associate professors, 327 lecturers and 448 assistant professors are employed. The sufficient number of staff enables to execute high quality basic, master's and doctoral studies in the agricultural area. LUHS actively participates in Erasmus exchange programme. The programmes for academic exchange are signed with universities in 27 European countries.
- 4. The Faculty of Animal Husbandry dates back to 1936, when in Lithuanian Veterinary Academy (LVA) veterinary doctors were being trained, whereas in 1946, the second faculty (Faculty of Zootechnics) started to train zootechnicians. In 1992, the faculty was restructured and named as Faculty of Animal Husbandry (FAHT).
- 5. In 2001, Lithuanian Animal Husbandry Institute (LAHI) and Lithuanian Veterinary Institute (LVI) were joined to LVA, and became parts of it. The formed structure enables to ensure high quality of the study, research development in animal husbandry, veterinary, food safety and animal wellness areas, science and business cooperation, to implement new research technologies in manufacturing of animal origin production. Doctoral studies in the field of agricultural sciences are being executed.
- 6. The employees of the FAHT perform fundamental, applied research, experimental development, which contributes to improvement of teachers and researchers' qualification and quality of taught subjects, and to development of students research skills.
- 7. The activity of the faculty is governed by faculty Council and the dean. The provisions of the faculty Council are obligatory for faculty employees and students. The dean heads the faculty implementing the requirements of LUHS Statute, and provisions of the faculty Council. Pursuant to the position, the dean is a member of faculty Council and the rectorate.
- 8. Self-evaluation of the Programme was carried out by a group established by the resolution of LUHS FAHT dean (17 Oct. 2016, No VGF-1-57). The group consists of 11 members (8 teachers of the university, 2 students and a representative of social partners). The final version of self-evaluation was approved by all members of the group and by the Board of Faculty of Animal Husbandry Technology (table 1).

Table 1. Work schedule of the group of self-evaluation

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Activities	Date
Discussion of self-evaluation course and distribution of activities.	24-10-2016
Data collection and analysis.	24-10-2016 – 22-12-2016
Discussion of initial self-evaluation results and means to ensure the	22-12-2016 - 03-01-2017
quality of the programme.	
Discussion of self-evaluation summary project.	04-01-2017
Self-evaluation summary presentment for faculty community, social	17-01-2017
partners and Board of Faculty of Animal Husbandry Technology.	

9. The external evaluation of the second circle study programme Animal Husbandry Technology was made by the Centre for Quality Assessment in Higher Education, in 2014. (Team leader: Prof. Dr. Ulf Magnusson).

# ANALYSIS OF PROGRAMME

# THE PROGRAMME AIMS AND LEARNING OUTCOMES

- 10. Agriculture and rural development are priority areas of the state regarding economy, ecology, social and ethnic culture<sup>1</sup>. Every farmer or farmer's partner (partners) should have professional preparation for farming the type of which is defined by an authorized institution<sup>2</sup>. National programme for development<sup>3</sup> of animal husbandry confirms the increase in demand for qualified specialists able to integrate into the modern competitive development of livestock sector, able to manage the production processes in a constantly changing business environment and creatively adapt the world achievements in Lithuania, assess market dynamics.
- 11. Program is being implemented through the National Sustainable Development Strategy<sup>4</sup> giving particular attention to scientific progress and knowledge and technological progress, under which the various sectors and branches must be based on modern scientific achievements, knowledge, innovative methods with minimal negative impact on environment. Animal husbandry master's degree programme focuses on the development of AHT competencies required for the organisation of livestock production, introducing the latest and more environmentally friendly technologies and biotechnologies for production of animal origin products and preservation of quality, taking into account priorities of the EU common agricultural policy, implementation of environmental and food safety, animal welfare requirements.
- 12. Lithuanian Health Science University is the sole university in Lithuania, performing modern interdisciplinary research, preparing and awarding doctoral, master's and bachelor's degrees and qualifications in veterinary and agriculture. The University is the only one in Lithuania implementing specialised second cycle programme of agricultural sciences study area, zootechnics field, whereas the AHT master's study programme is sole specialised second cycle programme of agricultural field in Lithuania which was launched reacting to the demand of animal husbandry for animal husbandry specialists prepared to independently work in production and scientific areas of animal husbandry sector, solving issues of agricultural and animal husbandry institutions as well as national, regional and local problems under the influence of globalisation factors.
- 13. The objective of the study programme is pursuant to the university aims of strategic development for 2017-2021<sup>5</sup>. The mission to create, cumulate, systemize, and propagate science knowledge, the newest science and study achievements, to train and educate creative, honest, initiative, healthy, independent and enterprising personality, to treasure democracy and welfare, to educate healthy and educated society. Exceptional role of the LUHS in the process is the objective of healthy society ensuring social and economic progress, civilized identity of Lithuania, creation of Lithuanian and world cultural traditions, their maintaining and development. The guarantee of animal health and welfare is an integral part of this attempt.
- 14. The main objective of the programme to prepare highly qualified master's of agricultural science, zootechnics field capable to creatively apply the newest knowledge, methods and technologies in animal husbandry practice, capable to independently carry out analysis, to evaluate analysis results, to perform work requesting high quality in state and private sector.
- 15. First partial objective: to form a personality of wide erudition, to enhance creative potential, activity and responsibility of the person; provide with steady knowledge in methodology of scientific

<sup>&</sup>lt;sup>1</sup> https://www.e-tar.lt/portal/en/legalAct/TAR.80CA64E588A1

<sup>&</sup>lt;sup>2</sup> https://www.e-tar.lt/portal/en/legalAct/TAR.769B541DD7F7/TAIS 424849

<sup>&</sup>lt;sup>3</sup> https://www.e-tar.lt/portal/en/legalAct/e878d0e089d811e397b5c02d3197f382

<sup>&</sup>lt;sup>4</sup> https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.217644

<sup>&</sup>lt;sup>5</sup> http://www.lsmuni.lt/media/dynamic/files/11107/2tarybossprendimas1priedaslsmupletrosgaires.pdf

- investigation, to form skills for scientific work, to develop capabilities to apply scientific knowledge in animal husbandry.
- To master the modern theories of animal husbandry science, to be able to responsibly and independently express ideas, to apply modern research methods, explain the principles and application of the chosen methods, to choose appropriate methods of statistical analysis for specific research, to plan and implement them properly.
- To master the newest knowledge regarding animal husbandry specifics and structure, coherence, functioning of its components and change under fluctuating conditions of environmental impact; to expand competences acquired in the first cycle study, to creatively apply the knowledge developing scientific ideas independently.
- 16. Second partial objective: to provide knowledge and capabilities ensuring competitive development of animal husbandry and implementation of innovation, capabilities to creatively apply the knowledge for independent development of scientific ideas, solving problems in producing animal husbandry products and operating technologies.
- To manage to ensure optimal physiological, etiological and nutrient needs of animals; implementation and control of feeds production, requirements of animal welfare; to have awareness of achievements in animals' genetics and biotechnologies and possibilities of their application.
- To manage to evaluate and apply technologies of animal husbandry (dairy and meat cattle production, pig, poultry, apiculture production, etc.)
- To manage to produce safe high quality raw materials and production of animal origin sustaining environment and evaluating risk factors.
- 17. Third partial objective: to be able to prepare, evaluate and apply measures for development of animal husbandry; to apply methods for pollution prevention and requirements for animal welfare; to apply principles and ways for preservation of biological diversity formation and sustainable development in manufacturing products of chosen animal husbandry area.
- To manage solve problems in animal husbandry under the conditions of persistently changing environment; to be aware of one's own knowledge and consequences of taken decisions on that basis and responsibly for that.
- 18. The relationship of study programme objectives, outcomes and subjects are presented in table 2.
- 19. The complexity level of the Programme study outcomes corresponds to the requirements of the VII level of study outcomes described in Lithuanian qualification framework<sup>6</sup>. The outcomes of the Programme evidence the graduates to be prepared for independent research and/or for cycle III (doctoral) study; for professional activity of animal science specialist at a workplace requiring capabilities to solve science-production problems of animal husbandry sector, to take innovative decisions based on research, to do research, leading, consultative job in the area of agriculture.
- 20. The objectives of the study programme are pursuant to the provisions of Lisbon convention, Bologna process declaration<sup>7</sup> and formed aims for creating informative knowledgeable society in later communiques in Prague, Berlin, Bergen, London, Leuven-LLN (Leuven and Louvain-la-Neuve), Budapest-Vienna declaration, Bucharest Communiqué.
- 21. Forming objectives and outcomes of the programme, the documents were taken into account: "Description of general requirements for master's study" approved by the Minister of Education and Science, 03 June 2010, No V-826 (Official Gazette, 2010, No 67-3375), description of study cycles, (Minister of education and science, 21 Nov 2011, No 2212; Official Gazette, 2011, No 143-6721), recommendations by the group of preparing description for study field or fields (Minister of education and science, (15 Dec. 2011, No V-2463). The provision of Government of the Republic of Lithuania "On amendment approval of description for qualification framewor" (23 Dec. 2009, No 1749 provision "On areas and fields of studies").

<sup>&</sup>lt;sup>6</sup> European Qualifications Framework (EQF), 2008 http://ec.europa.eu/education/pub/pdf/general/eqf/broch lt.pdf

<sup>&</sup>lt;sup>7</sup> The Bologna Process 2020 - The European Higher Education Area in the new decade (http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/leuven\_louvain-laneuve\_communiqu%C3%A9\_april\_2009.pdf)

- 22. The statistics of graduate's employment evidences appropriateness of the study programme. Graduates of AHT master's study programme work successfully in animal husbandry sector, are engaged in science research, doctoral study at LUHS and other science institutions of the country, pedagogical activity at universities and collegiums. Moreover, graduates lead a successful professional career in offices of Agricultural Consulting Service, National paying agency, agricultural departments of municipalities, etc.
- 23. Monitoring of graduates' recruitment is executed at the University in accordance to a general methodics. The telephone interviews of graduates are performed annually six months after the study programme graduation. The data reveal the majority of graduates are employed. Data of graduates' surveys are used by SPC for improvement of the study programme and for self-analysis of the programme.
- 24. Programme objectives, intended study outcomes, qualifications awarded and summary of description are presented on the internet website, in the AIKOS<sup>8</sup>, the website of the university<sup>9</sup>. Information regarding study programme is given in the publications released every year (the university newspaper, booklets, leaflets etc.). Useful information is available in the descriptions of the subjects and modules on LUHSSIS<sup>10</sup> website.
- 25. Animal husbandry technologist holding a master's degree can carry out scientific research of agricultural field, consult or manage science and education institutions, forming strategy and tactics of agricultural and food production development in establishments of authorisation, consulting services, agro business. Master's study is oriented to scientific activity master's study prepares students for professional activity of a scientific researcher, whereas the acquired competence permits the graduates to apply accumulated knowledge of science for career expanding opportunities to get employed in institutions of education and science, to seek for doctoral degree, to apply knowledge in international, national organisations and other establishments.
- 26. The outcomes of the study programme are reviewed every year. Considering stakeholders' comments and recommendations teachers update study descriptions. The changes are considered in SPC, and Council of the faculty.
- 27. The study coordination and monitoring are executed by SPC, which consists of 9 University employees, students' representatives delegated by the Students' Council of the faculty, an employer's representative. The Committee scientists are responsible for compatibility of study knowledge and skills with the newest science tendencies and their integration into concrete study subjects. The employers' representative is responsible for analysis of study programme's compatibility with the changing needs of employers, evaluation, corrections in students' practical skills. Students' representatives analyse and evaluate changes in students' expectations, their integration into study programme. The chairman of the study programme evaluates the compatibility of the programme with the general requirements for study programmes, organises and monitors the attestation course of study subjects descriptions, collaboration with social partners of all study programmes, carries out general coordination of study programe evaluation and discussion concerning improvement of the programme.
- 28. To the Programme improvement, updating of study process on the basis of their professional, managerial and other experience representatives of business and academic partners are invited to deliver relevant lectures to students abut new technologies in animal husbandry.

29. The objectives, content, outcomes of the study programme are compatible. The programme objective is pursuant to the mission of the University and with the situation of economy, business and labour market. Theory and practice of Lithuanian and world animal husbandry science are reflected in the study outcomes. To react efficiently seeking to correct study programme's outcomes – consistent monitoring of the programme, research, labour market in Lithuania and worldwide is required.

<sup>8</sup> https://www.aikos.smm.lt/en/Pages/About-AIKOS.aspx

<sup>9</sup> http://www.lsmuni.lt/en/

<sup>&</sup>lt;sup>10</sup> https://lsmusis.lsmuni.lt/Prisijungimas/Prisijungimas

Table 2. Objectives, outcomes of the second cycle AHT study programme and study subjects forming them

Partial objectives of the study	Intended outcomes of the study programme	Study subject
programme		
1. To form a personality of	To master the modern theories of animal	Methodology of research;
wide erudition, to enhance	husbandry science, to be able to responsibly and	Special foreign language (English, German);
creative potential, activity	independently express ideas, to apply modern	Scientific research – 1;
and responsibility of the	research methods, explain the principles and	Scientific research -2;
person; provide with steady	application of the chosen methods, to choose	Scientific research -3;
knowledge in methodology of	appropriate methods of statistical analysis for	Practice;
scientific investigation, to	specific research, to plan and implement them	Thesis.
form skills for scientific	properly.	
work, to develop capabilities	To master the newest knowledge regarding animal	Methodology of research;
to apply scientific knowledge	husbandry specifics and structure, coherence,	Animal husbandry business;
in animal husbandry.	functioning of its components and change under	Preparation and managing of business projects;
	fluctuating conditions of environmental impact; to	Scientific research -1;
	deepen competences acquired in the first cycle	Scientific research -2;
	study, to creatively apply the knowledge	Scientific research -3.
	developing scientific ideas independently.	
2. To provide knowledge and	To manage to ensure optimal physiological,	Welfare of farm animals;
capabilities ensuring	etiological and nutrient needs of animals;	Technologies for preparation of grass feeds;
competitive development of	implementation and control of feeds production,	Production technologies for compound feeds and feed additives;
animal husbandry and	requirements of animal welfare; to have awareness	Control development of feeds production and quality;
implementation of	of achievements in animals' genetics and	Factors of feeds safety and risk;
innovation, capabilities to	biotechnologies and possibilities of their	Dietology of small animals;
creatively apply the	application.	Biotechnology of animals;
knowledge for independent		New technologies of animal breeding;
development of scientific		Methodology of research;
ideas, solving problems in		Scientific research -1;
producing animal husbandry		Scientific research -2;
products and operating		Scientific research -3;
technologies.		Practice.

	To manage to evaluate and apply technologies of animal husbandry (dairy and meat cattle production, pig, poultry apiculture production, etc.)	Milk biochemistry and technologies for milk reproducing; Milk and beef production technologies; Quality of poultry products and technologies for their production; Meat biochemistry and technologies for meat reproducing; Technologies for pork production; Bee products and technologies for their extraction; Producing of ecological animal husbandry products and risk factors; Welfare of farm animals.
	To manage to produce safe high quality raw materials and production of animal origin of sustaining environment and evaluating risk factors.	Producing of ecological animal husbandry products and risk factors; Hazard Analysis Critical Control Point System in Food Enterprises; Milk biochemistry and technologies for milk reproducing; Milk and beef production technologies; Quality of poultry products and technologies for their production; Meat biochemistry and technologies for meat reproducing; Technologies for pork production; Bee products and technologies for their extraction; Animal husbandry business; Ecotrophology (ecological nutrition); Methodology of research; Scientific research -1; Scientific research -2; Scientific research -3; Practice.
3. To be able to prepare, evaluate and apply measures for development of animal husbandry; to apply methods for pollution prevention and requirements for animal welfare; to apply principles and ways for preservation of biological diversity formation and sustainable development in manufacturing products of chosen animal husbandry area.	To manage solve problems in animal husbandry under the conditions of persistently changing environment; to be aware of one's own knowledge and consequences of taken decisions on that basis and responsibly for that.	Rural economic-social development; Animal husbandry business; Welfare of farm animals; New technologies of animal breeding; Milk and beef production technologies; Technologies for pork production; Quality of poultry products and technologies for their production; Producing of ecological animal husbandry products and risk factors; Bee products and technologies for their extraction; Methodology of research; Scientific research -1; Scientific research -2; Scientific research -3; Practice.

#### PROGRAMME STRUCTURE

30. The scope (Table 3) of animal husbandry technology master's study programme (full-time and continuous) conforms to general requirements for the master study programme of the description approved by the LR Minister of Education and Science (03 June 2010, order No V-826; "Regarding the approval of the general requirements for master's degree study programmes" (3 June 2010) the amendments (08 Feb. 2012, V-231; 27 June 2012 V-1045; 24 Nov.2014,V-1103; 07 July 2015,V-725)<sup>11</sup>.

Table 3. The compliance of the Programme with the legislation requirements

Analysis area	Requirements for university second cycle study programme	In the programme
Programme scope	Not less than 90 and not more than 120 ECTS credits	105 ECTS credits
Study field subjects of qualitatively higher problematic and innovative scientific level	Not less than 60 ECTS credits	84 ECTS credits
Student's elected subjects	Not more than 30 ECTS credits	21 ECTS credits
Final work preparation	Not less than 30 ECTS credits	48 ECTS credits
Study subjects allowed per semester	Not more than 5 subjects	2-5 subjects

- 31. The subject themes foreseen in study programme is thoroughly presented in subject descriptions (Annex 2): aims of study subjects, content annotation, outcomes, content, volume of academic hours for students, types of learning activity (lectures, practical's, seminars, independent work, etc.), literature to be used and recommended, knowledge assessment (accumulative score formula).
- 32. In AHT programme (Table 4 and 5) of full-time and continuous study, 105 ECTS credits are allocated for study field/speciality part. The volume of the study Programme in full-time study equals to that in the continuous study only the study duration differs. The full- time study lasts 2 years (4 semesters); that of the continuous study 2.5 yr (5 semesters).
- 33. The volume of AHT master's full-time study (105 ECTS credits) is distributed to compose 60 ECTS credits in the first year, and 45 ECTS credits in the second, whereas in the continuous study: 45 ECTS credits –in the first year, and in the second study year– 30 ECTS credits, in the third also 30 ECTS credits.
- 34. The continuous study plan and volume of study subjects are identical to that of full-time study, only the distribution of study subjects and the number of credits in individual semesters differ, thus the study subjects of continuous study are not described separately in this report of self evaluation.
- 35. In AHT masters, full-time and continuous studies 6 compulsory subjects of study field are offered (27 ECTS credits, composing 25.7 per cent of the whole Programme scope).
- 36. In addition to the compulsory subjects in AHT masters full-time and continuous studies elective block of special subjects consists of 12 ECTS (11.43 per cent of the total scope of the programme), block of free choice subjects and practice 9 ECTS credits each (8.57 per cent). For thesis preparation and defence 48 ECTS credits (45.71 percent).
- 37. Students choose and are registered for the study of elective subjects on the LUHS database<sup>12</sup> for electives, highlighting their choices.
- 38. The scientific research in AHT master's full -time and continuous studies consists of three parts: first year semester 1 and 2, second year semester 3. In the full-time study, practice is performed and thesis defended in the second year of the study (semester 4), whereas in the continuous study in the third year (semester 5).

<sup>&</sup>lt;sup>11</sup> https://www.e-tar.lt/portal/en/legalAct/TAR.223429B8A4E8

<sup>&</sup>lt;sup>12</sup> https://lsmusis.lsmuni.lt/Prisijungimas/Prisijungimas

Table 4. Plan for Animal Husbandry Technology master's full time study programme 2016-2017

		II year							
		Study scope per semester							
	I		II		III		]	IV	
	Hours	ECTS	Hours ECTS		Hours ECTS		Hours	ECTS	
Subjects of study field (S)	167	12	86	9	84	6			
Scientific research	6	9	6	12	6	6			
Elective block of special subjects	60	6	60	6	34	3			
Elective subjects	34	3	34	3					
Practice							10	9	
Master's thesis							6	21	
Total:	267	30	186	30	124	15	16	30	
Total number of hours		453 140							
Total number of ECTS		60				4	.5		

Table 5. Plan for Animal Husbandry Technology master's continuous study programme 2016-2017

	I year				II year				III year		
		Study scope per semester									
		I	II		III		IV		$\mathbf{V}$		
	Hours	<b>ECTS</b>	Hours	<b>ECTS</b>	Hours	ECTS	Hours	<b>ECTS</b>	Hours	ECTS	
Subjects of study field (S)	79	9	32	6	56	9	24	3			
Scientific research	4	9	4	12	4	6					
Elective block of special subjects			32	6	32	6					
Elective subjects			16	3	16	3	16	3			
Practice									10	9	
Master's thesis									4	21	
Total:	83	18	84	27	108	24	40	6	14	30	
Total number of hours	167				148				14		
<b>Total number of ECTS</b>		45	5			30			-	30	

- 39. In the Programme for full-time study: auditorium/classroom work 31 per cent, and independent work 69 per cent of subject scope. In the Programme for continuous study: auditorium/classroom work 20 per cent, and independent work 80 per cent of subject scope (including practice and final work).
- 40. The content of the study subjects conforms to the kind and cycle of the university study. The study programme content of AHT master's (full-time and continuous) is composed pursuant to the requirements of the regulation<sup>13</sup> (LUHS Senate, provision No 47-05, 20 June 2014; amendment (LUHS Senate, on 23 Jan. 2015, provision No 54-04) and is in accordance with the description of the general requirements for master's degree study programmes<sup>14</sup>, approved by the LR Minister of Education and Science (03 June 2010, order No V-826). Having completed the programme students reach the intended outcomes of the study.
- 41. The sequence of the study Programme subjects foreseen in the study plan is based on the logical sequence of Programme outcomes, according to which compulsory subjects of the study field and electives expand theoretical knowledge required for carrying out independent scientific research and for thesis preparation. Subject and module themes of AHT full time and continuous studies reflect the newest science achievements in the area of animal husbandry technology.
- 42. In AHT master's full-time study the subjects are set in semesters taking into account their sequence, complexity, and interrelations (Annex 1). In the first study year subjects as methodology of scientific research, animal biotechnology, welfare of farm animals, agricultural business, whereas in the second year producing of animal origin organic products and risk factors and ecotrophology (ecologic nutrition). The correlation of study subjects foreseen in the programme is evident in the subjects' descriptions, in which a required background for the study of a particular subject is given (Annex 2). Such consistency and cohesion of study subjects ensures the achievement of intended study outcomes foreseen in the objective of the Programme.
- 43. During AHT master's continuous study, subjects are set in semesters on the basis of the same principles as for full-time study, only the time period (I-III study years) is longer.
- 44. The themes of study subjects comply with the intended study outcomes. The subjects' descriptions are consistently revised and updated before every study year starts, which preconditions to adjust the content of study subjects to current relevancies and demands. The themes of study subjects are presented in the descriptions (Annex 2).
- 45. The types of students' learning are guided learning and independent work. Teaching type auditorium work. The guided learning work consists of lectures, laboratory work, practicals, consultations, examinations, thesis defence. The distribution of auditorium study: lectures comprise not more than 30% of guided time; laboratory work, practical's seminars, consultations, examination not more than 70%.
- 46. The forms of student's independent work consist of team (group) and individual assignments, report, preparation for tests, colloquiums, laboratory work and practicals, preparation for independent literature study and preparing and defence of thesis.
- 47. In the study, methods of active teaching/learning are applied: analysis of a situation (case), analysis of mistakes, group (team) assignments, students' individual presentations discussions in the auditorium, etc. Analysis of a situation (case) is integrated within the lecture time. To prepare for a discussion students are provided with individual or team assignments. Presentation is individual. The individual assignment permits students to use their knowledge and skills to solve the problem/situation. Teamwork provides students to gain knowledge not only from the study field, but also general competences (capability to solve problems, make decisions, generate new ideas, monitor information). Innovative teaching/learning methods, used in subjects study, urge students to learn from a real situation, precondition to learn from mistakes, develop skills for analysis, monitoring of scientific information, making decisions in professional activity and so forth.
- 48. Study Programme's plans (subjects distributed in semesters) are presented on LUHS site<sup>15</sup>.
- 49. The distribution of learning types is appropriate for students to reach intended study outcomes.

<sup>&</sup>lt;sup>13</sup> http://www.lsmuni.lt/media/dynamic/files/5983/lsmustudijureglamentas.pdf

<sup>&</sup>lt;sup>14</sup> https://www.e-tar.lt/portal/en/legalAct/TAR.223429B8A4E8

<sup>&</sup>lt;sup>15</sup> http://www.lsmuni.lt/lt/veikla/studijos/akademine-informacija/studiju-planai/studiju-planai-2016---2017-mm/

- 50. In AHT master's full-time and continuous studies practice is completed with assessment of performed work (project). Students have already acquired relevant theoretical knowledge in production technologies for producing animal origin products, animal genetics and breeding and biotechnologies, thus seeking to appropriately develop practical skills, to qualitatively prepare final work practice is performed in various institutions. For practice, the university offers students a list of institutions (with which agreements are concluded). Students of AHT second cycle full-time and continuous studies perform practice in accordance with the description for order of practice execution (LUHS Rector's order 31 Oct. 2016 No V-934). Practice is organised pursuant to the description that defines requirements for practice, its exact assignments, intended study outcomes and system for evaluation of achievements, assistance for a student during the practice, also evaluation criteria for identifying and evaluating skills of appropriate level gained during practice.
- 51. Scientific research in AHT master's full-time and continuous studies is performed in semesters I III (total 27 ECTS credits). During that time, students perform individual assignments foreseen in the study plan and prepare master's work for defence. Students apply the acquired theoretical knowledge for preparation of the final work, whereas the credits assigned for scientific research are integrated to separate divisions: Department of Animal Breeding and Nutrition, Institute of Technologies for Animal Raising, Institute for Investigation of Biologic Systems and Genetics and Institute of Animal Science.
- 52. All study subjects are completed with the examination. System of cumulative evaluation score is used at the university; mediate assessments compose a part of the examination score. Students get acquainted with the assessment criteria and deadlines at the beginning of the study subject. The AHT master study is completed with the preparation of final work and its public defence conforming to the regulation for AHT study programme master's thesis preparation and defence. The regulation is accessible for students on LUHS intranet (FirstClass).
- 53. The study subjects, practice and thesis foreseen in the Programme ensure that students completing the programme will have cognitive capabilities associated with animal husbandry technology, i.e. to analyse evaluate problems linked with animal raising, keeping, nutrition, breeding and so forth; graduates will apply problems' solution ways, will evaluate and apply advanced technologies in scientific research, assess analysis results and their reliability; will acquire practical capabilities for evaluation of animal husbandry situation in Lithuania and EU countries. In addition, graduates of the study Programme will gain transfer capabilities required for consistent improvement of professional qualification, for use of juridical and normative documents, time planning, ability to analyse and generalize information, awareness of risk and changes, management and organisational skills, etc.

54. The study programme structure, content and scope allow to achieve study outcomes and conform to the legislation of Lithuania and European Union. The study subjects/modules are distributed consistently; the content of study subjects is not repeated and corresponds to study field and form. Seeking to expand theoretical, practical knowledge and skills developed at the study, it is planned to apply innovative teaching methods oriented to the development of students' creativity, general and special competences.

# THE TEACHING STAFF

- 55. Staff competitions and attestations are executed pursuant to the legislation:
- LUHS Statute (resolution of LR Parliament on 3 June, 2010 No XI-973, amended LR 28 June, 2012 resolution No XI-2147);
- Law of Education and Science of the Republic of Lithuania 16.
- Regulation for election of the leader of a department / institute or profile clinic (by resolution of Senate on 30 June, 2014 No 48-02, amendment 21 Oct. 2016, resolution No 80-9);

<sup>&</sup>lt;sup>16</sup> https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.343430

- Order for attestation and recruitment competitions for the positions of teachers and research staff (approved by LUHS Senate 17 June, 2016 provision No 75-08);
- European Commission Recommendation on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers (2005/251/EC)<sup>17</sup>.
- Teaching staff has to follow Code of Ethics (LUHS Senate, 20June, 2014, resolution No 47-17).
- 56. The academic staff of LUHS undergoes attestation every 5 years. In case the teacher under attestation does not conform to the defined pedagogic, research and practical activity criteria for a certain position his/her academic activity is either terminated (its renewing attestation procedure is repeated), or the position is reduced.
- 57. Teachers engaged in the programme have sufficient experience in practical, pedagogic and research work; take part in researchers' training; supervise preparation of final work and research in study cycles I, II and III (doctoral). Some teachers are experts of international level, assessors of science publications and members of journals' editorial boards, experts of international programmes, experts of research projects and reports.
- 58. Teachers consistently improve their qualification being interested in technological innovations and studying them, participate in conferences, seminars, courses for educational competence improvement, trainings, qualification improvement, exchange programmes (Erasmus+), publicize science articles, are able to communicate in at least one foreign language used for international collaboration (table 6).

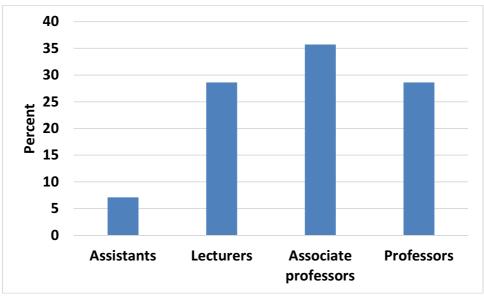
Table 6. Numbers of teachers and fields of their competence development

Areas of competence development	2012	2013	2014	2015	2016	Total
Competence improvement programmes	8	1	1	1	1	12
Exchange programmes		2			2	4
Trainings	6	2	2	2	5	17
Courses	5		2		1	8
Conferences:	26	15	27	21	37	126
Seminars:	10	2	4	5	4	25
Total	55	22	36	29	50	192

- 59. As many as 28 teachers are employed in the programme: professors 8 (28.6 %); associate professors 10 (35.7 %); lecturers 8 (28.6 %) and assistants 2 (7.1 %). Doctor's degree is held by 88.2 % of teachers, which evidences sufficient professional competence of the staff (Picture 1).
- 60. Teachers' work load and distribution is determined by LUHS regulation for the calculation of divisions teaching load and salary foundation (approved by Senate resolution on 30 June 2014, No 48-1). A full-time teacher's working week consists of 30 hours per week. The structure of the teacher's position encompasses: 1) organisation and realisation of study, 2) applying of research outcomes in study, 3) accumulation of science knowledge, 4) health care related to the study process, 5) development of creative activity, 6) culture cherishing, 7) participation in another activity relevant to the University and its subdivisions.

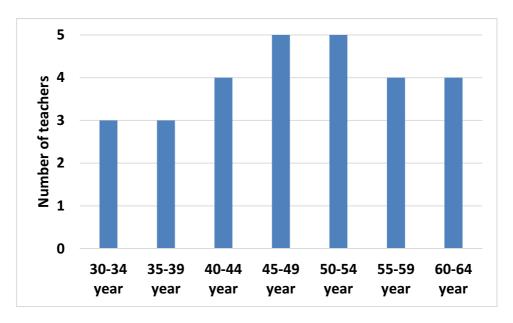
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<sup>&</sup>lt;sup>17</sup> http://eur-lex.europa.eu/legal-content/LT/ALL/?uri=CELEX:32005H0251



Picture 1. Pedagogic staff

61. Majority of teachers engaged in the programme are younger than 54 years (71.4%) The highest percentage (60.7%) is of teachers aged between 35-54 years (most efficient group). None of the teachers is older than 65 years of age (Picture 2). To ensure a proper rotation in the teaching staff, the University provides doctoral students with conditions to take part in the study process, and to remain at the University after graduation.



Picture 2. Pedagogic staff

- 62. For academic work, teachers most frequently go to universities in Germany, Austria, Italy, Holland, Czech, Poland, Portugal, Spain, Finland, USA and other countries.
- 63. The main causes of teachers' rotation are their transfer to higher positions on the competition basis, retirement, maternal leave. Changing a job place is a rare case. After a teacher's contract terminates, any scientist, who corresponds to the requirements, may take part in the competition for the position. It ensures the necessity for teachers to improve qualification and qualitative study process.
- 64. After graduation part of the PHD students stay at the department of AHT educational or scientific activity.
- 65. Teachers are provided with conditions to participate in research programmes, exchange programmes, to go to conferences, courses for qualification improvement, to prepare publications, monographs, textbooks. Teachers have possibilities to go abroad for qualification improvement, to participate in conferences and similar activities. That is preconditioned by a special LUHS foundation.

66. Teachers are active scientists, executing fundamental and applied research, methodical work and other scientific activity; they are interested in advanced teaching methods and actively take part in creating them. Every teacher performs research conforming to the science field approved by the Senate. Research and applied scientific activities improve teachers' professional qualification, precondition updating study subjects with the newest science and practical knowledge and provide students with research skills. Teachers' research activity and number of scientific publications within 5 years are the main indices in teachers' assessment during their attestation. Science publications evidence scientific activity of teachers engaged in AHT programme. On average 3.4 science publications are written by a teacher annually (table 7).

Table 7. Scientifuc publications of teachers employed in AHT programme in 2012-2016 years

Publication type	Total
Monographs, textbooks, teaching and methodical material, reference books guides, and other books	55
Other information publications	12
Patents registered in Lithuania	1
Article in conference ISI proceedings	2
Article in reviewed Lithuanian international conference publication	50
Article in ISI Web of Science	37
Article in reviewed science publications referred on other DB	47
Article in other reviewed publications	41
Article in a popular science publication	72
Theses on other reviewed publications	72
Conference theses in not reviewed publications	89
Total publications	478

67. The Programme teachers are active members of various commissions and projects; they organise activities, seminars and conferences, the themes of which correspond to the study field (table 8).

Table 8. Dynamics of faculty staff having participated in organising activities

Activites, projects	2012	2013	2014	2015	2016	Total
(organised)	4		_	_		
Conferences in Lithuania	4	2	5	7	9	27
International conferences	2	1	4		4	11
Seminars	7	2	7	11	12	39
Competitions	2	2	11	7	8	30
Courses	4	2	18	22	13	59
Training courses for farmers	3	4	10	4	5	26
Exibitions			1	4	5	10
Total	22	13	56	55	56	202

68. Research and study subjects, performed by teachers employed in the programme, conform to the study field. Qualification of teachers engaged in the programme is high: Teachers actively improve qualification participating in scientific activities and educational seminars organised by LUHS Study Centre. However, teachers' relationship with universities of EU and of other countries is not sufficient – participation in qualification improvement courses and exchange programmes is rare. Furthermore, teachers' encouragement to improve qualification visiting modern foreign laboratories and institutes and to intensify participation in international scientific projects will be intensified.

# FACILITIES AND LEARNING RESOURCES

69. The study programme is being executed in compliance with the general order of LUHS for organizing studies, coordinating study venue and time with other programmes of the university. The LUHS possesses all main resources (lecture halls, laboratories, laboratory equipment, information technology, and library) for successful execution of the programme. For the organisation of the studies, lecture halls of different size (table 9), a classroom for distance teaching, 48 training laboratories, and 32 classrooms are available. Groups of students for master's study programme are small, therefore smaller classrooms adjusted for team work are used. The conditions for the programme students are adequate for independent work – reading room, 6 computer classrooms are installed. Study rooms meet the requirements for safety and hygiene standards.

Table 9. Auditoriums and the number of seats in them

Auditorum	Dr. Stasys Jankauskas	II Prof. Konradas Juozo Aleksa	III Prof. Rimantas Karazija	IV	V Assoc.prof. dr.Jonas Čygas	VI	VII Prof. dr. Juozas Žemaitis	Žalčio hall
Namber of seats	210	280	275	275	105	50	108	40

- 70. Lecture halls are provided with computerised studio visualisation equipment (multimedia, smart boards). Legal, modern software is used for the study: Microsoft Office, Hybrimin Futter 2008, PEST, VCE, Windows", "Internet Explorer", "IBM SPSS Statistics", "AMOS", "Sample Power", "EpiInfo".
- 71. In the study process students of the programme have a possibility to use LUHS scientific laboratories, centres, vivarium and the equipment in them.
- 72. Department of Anatomy and Physiology: zoology laboratory 14 places, provided with microscopes, stuffed animals, preparations; botany laboratory 14 places, provided with microscopes, micro preparations, herbaria; teaching physiology laboratory 30 places, 9 computers, 20 microscopes; Anatomicum preparations: bones, joints, moulages, teaching films, 3D programmes. Vivarium classroom provided with portable and stationary tables for procedures, fixation equipment for rabbits and rats, CO<sub>2</sub> euthanasia apparatus, electronic scales, centrifuge.
- 73. Laboratory for meat characteristics and meat quality evaluation: Knauer firm HPLC system (high pressure liquid chromatographic system) with UV detector, degassing equipment, and automatic equipment for sample setting, colour meter "Minolta chromameter 410", automatic scales SM–3 to determine dry substances, electrophotometer "Ultrospec 3100" (Eppendorf firm), Shimadzu firm, gas chromatographic system GCMS-QP2010 Ultra, with automatic equipment forsettin liquid and overspaced samples AOC-500 Plius, and masses (MS) and flame ionization (FID) detector, microscope "Nicon YS 100" connected to the computer.
- 74. Laboratory for animal welfare investigation: The reference materials, standards, immunofermentic tests for determination of mycotoxins are accumulated. ALMAMO-22993, ALMAMO-22993, air gas analyser "Dräger", TSI thermal environmental analyser, Gilian equipment (designated for investigation of dust dispersion), temperature accumulators—EBI-6 and others. In the laboratory a

- sterile room is designated for isolation of micromycetes; for identification of micromycetes a light microscopy is used. Modified chromatographic methods (Romer Labs, USA) are used to determine mycotoxins: Romer mill , mixer , Romer® autospoter, Romer®Evap system. Romer Labs cleaning columns are used for sample cleaning. Immunofermentic analysis is used for screening; assessment is performed with StatFax 303 Plus". (Neogen company).
- 75. Laboratory of Animal productivity: The accumulated equipment enables to conduct quality analysis of feeds/fodder, meat, eggs quality: Gerhardt system – for fat analysis, Fibrebag system – for fibre analysis, Memmert drying oven, High preasure liquid chromatography system (HPLC) VarianProStar (VarianInc, USA), containing 2pumps VACUM pumps ProStar 210, automatic sample system ProStar 410 and 4 detectors: Prostar 363 Fluorescence Detector (FLD), UV/VIS detector ProStar 325 and electrochemical detector (PAD) and Mass spectrometer LCO FLEET (ThermoFisher **SCIENTIFIC** WISSENSCHAFTLICHE GERÄTE GMBH. Austria): spectrophotometric system of atomic absorption, iCE 3000 series with Czerney-Turnermonocromartor, flame atomizer, air compressor, granite atomizer and auto sampler, water cooling system ((ThermoFisher SCIENTIFIC WISSENSCHAFTLICHE GERÄTE GMBH, Austria); to which it is possible to connect microwave sample mineralisation system Mars Express (CEM Corporation, USA); to investigate egg quality multifunctional egg tester "EMT-5200" (to meter egg weight, albumen height, Haugh index, yolk colour intensity), egg shell firmness "Egg Shell Force GaugeModell-II".
- 76. Institute for investigation of biologic systems and genetics: Training laboratory: the newest equipment for molecular and cytogenetic investigation, e.g. 3 DNA amplificators, centrifuges, cooling centrifuge, vortexes, spectrophotometer Q 2.0, 10 horizontal electrophoresis apparatus for agaroze gel, ABI 310 capillary DNR analyser, BioRad gels video documenting system, Biolar -70°C freezer, laminar, ventilation system, thermostats, thermostat Binder BD 53 1 unit., microscope MOTIC -10 units, transiliuminator 2 units, termocycler G-STORM - 2 units. Lecture hall No 106: 30 places, computerised, software; No 107- laboratory for teaching genetics: 24 work places provided with microscopes, electrophoresis apparatus, vortex, etc). 108 K. Janušauskas genetics laboratory (scientific): microscope NIKON ECLIPSE 80i, Konica Minolta, thermosts, Thermostat Binder, centrifüge **UNIVERSAL** 32R HETTICH ZENTRIFUGEN, microcentrifuge **MICRO** CENTAUR, spectrospectrometer GENEquantll, mixer Vortex gene 2, Thermomixer comfort, thermobath THERMOLYNE DRI- BATH, ventilation system MICRO-FLOW, lamp MICRO-FLOW, PCR amplificator GENE AMP PCR SYSTEM, Cikler EPPENDORF MASTER CYCLER 5330, AMPLITRON II THERMOLYNE, Water cleaning system PINIX POWER, Water bath, freezer ANGELANTONE, Sekvenavimosystem, electrophoresis system MIDICELL PRIMO 2units, electrophoresis apparatus. electronic scales SARTORIUS AG, electrophoresis system MAXI CELL, electrophoresis system, electrophoresis apparatus ADJUSTABLE VERTICAL GEL SYSTEM, transliuminator, Vacuum centrifuge EPPENDORF CENCENTRATOR, PH MetermulticalPH538, mixer, analyser ABI PRISM, transliuminator BIO-IMAGING SYSTEM REALtime PCR system, CentrifugeMultifuge 32.
- 77. LUHS institute of microbiology and virology: System SensititreAris 2X (ThermoScientific, USA) for microorganisms antibacterial sensitivity investigation, microscope Olympus BX53 with video camera (MicroPublisher 3.3);epi- fluorescent equipment BX3-URA. (Olympus, Japan); electrophoresis system of pulsating electric field (PFGE) CHEF-DR III Chiller System (bio-Rad, gels documentation system GelDoc-It TS. (UVP, JAV); high speed rotation microcentrifugePico 17 (ThermoScientific,USA); real time gradientic PGR thermocycler StepOnePlus (AppliedBiosystems, USA); thermostatic -incubators (4units) Memmert INB 400 (VWR.Germany):thermosts –incubators (2units) Memmert INB 500 (VWR. Germany): CO2 thermostat-incubator AutoFlow 5500 (NuAire, USA); laminar box MicroFlowClass III/I ABS 1200 (BioQuell, JAV); 2 safety class laminar boxes NU-480-400E (NuAire, USA); Biowizardstandard (Kojair, Suomija); microscope Eclipse E200 (Nikon, Japan); laboratory autoclaves (2units) STE-TAN-18L (MRC Lab, USA); laboratory autoclaves VX-75, (Systec, Germany); laboratory heating – airing oven UNB 500 (VWR,Germany); laboratory heating-airing oven UNB (VWR,Germany);laboratory freezer for deep freezing DF200-86E (Snijders, Nytherlands);distilator 2002 (GLF,Germany); ultra clean water purifying system Milli-Q (Milipore,France); PGR termocycler for tubes and plates TC-PRO (Boeco, Germany); electrophoresis energy control block

- Cleaver (Scientific Ltd., UK); 3 safety class class laminar box BioWizard3 (Kojair, Finland);orthogonal spectrometer NanoAcquity (Waters,USA); DNA microcells reading system OpenArry (AppliedBio systems, USA); electronic scales (precision 0.001g) Highland (AdamEquipement, Nytherlands); density meter of bacterial suspensions DEN-18 (Biosan, Latvia); thermostatic shaker TS-100C (Biosan, Latvia); shaker Vortex (VelpScientifica, (Germany); mechanic /electronic (single tube/multitube) pipettes for liquid microamounts dosage F2/Novus (Finnpipette, (ThermoScientific, USA); Computer programme Microgen<sup>TM</sup>Biochemical ID (Microgenbioproductsltd, UK), Orbit shaker Biosan PSU-20i.
- 78. Laboratory of animal breeding value investigation and selection: Programmes VCE + PEST, SPSS-15 for identifying animal breeding value and hereditary characteristics. For analysis of mares milk composition and quality "EKOMILK-M" ultrasonic milk analyser defining milk fat, protein thickness of lean milk (SNF) density, amount of added water, freezing value, pH and lactose. "EKOMILK SCAN" analyser of milk somatic cells "EKOTEST" detecting of antibiotics and inhibitors in milk. "FT MULTILYSER" (Förster–TechnikGmbH, Germany) for evaluation of reproductive properties based on progesterone content in milk. Feed analysis system "AgriNIR". System "Afimilk" for analysis of animals activity.
- 79. *Laboratory of animal reproduction:* For research, practical analysis and students' training in laboratories are used: FacsCalibur flow cytometer, microplate reader Elx800g s/n 18, microscopes of various purposes trinocular with epi–fluorescence accessory spectrum, inverted, fluorescence, eclipse 50i NIK–MBA 8502M, water treatment deionization system Ultra Clear Basic Plus, PGR mixing preparation equipment, horizontal Heliv electrophoresis system Mschoice10, CO<sub>2</sub> and System incubator F.Lli Gally, Diuaro dishes, Programme SCA 2002 Lte Microptic, assessment module SCA 2002, Progr. Module SCA 2002 LteMicroptic and others.
- 80. Laboratory for animals nutricology investigation. Department of nutrigenonics and animal husbandry processes systemic evaluation: NIRS feed analyser; calorimeter, polarimeter, completely automatic Kjeldahl analyser, burning block for Kjeldahl analysis, automatic system for total fat content determination, equipment for fibre identification.
- 81. Josifas Tacas centre for milking technologies: milking equipment and its construction parts of various firms, means for udder preparation for milking, milking equipment for goats milking, various milking facilities of different automatisation level, fragments of Eglutė and Tandem milking parlours, milking lines, equipment for work evaluation of vacuum, pulsators; herd management programmes DairyPlan, Alpro, e-GEBA, DelPro.
- 82. Aquaculture laboratory: Closed recirculation cystem, 1 m3 capacity fish raising sets of biologic filters, mechanic filter water pump, oximeter.
- 83. *Vivarium:* Classroom: work tables, computer projector, chairs with small tables for students. Training laboratory: portable and stationary tables for procedures, fixation equipment for rabbits and rats, CO2 euthanasia apparatus, electronic scales, centrifuge.
- 84. *Institute of animal husbandry:* Stable for 56 horses of žemaitukų breed (mares, stalions, and thoroughbred pedigree of various age). Two outside levadas are installed; a new electro mechanic horse walker is constructed. Equine inventory is set (show jumping obstacles, saddle, bridles, identification tools, etc.
- 85. LUHS Experimental training centre: In three farms of LUHS Centre for Practical Training and Experimentation, livestock of different breeds are kept (approximately 230 cows, 200 heifers, 30 bulls). Giraitės farm contains two training facilities (117m2 and 66m2). Teaching equipment: milking system, Tandem milking parlour, (in Muniskiai farm milking is performed into milk lines), feed distributers BVL V-MIX 8 LS, manure removing transporters, enclosures, rubber mats, silo trenches and other equipment used in production process.
- 86. Students can make practice practice bases with which the University has an agreement.
- 87. Library funds. The University's methodical resources are coordinated by LUHS Library and information centre (LIC). In the library and IC, 6 reading rooms containing 544 workplaces (143 computerized), 3 rooms for group learning, multimedia room containing 8 workplaces, computer training classroom (12 workplaces), 2 seminar/conference halls are available for the users. The library is opened on weekdays from 7.30 a.m. to 10.30 p.m., and on weekends -- from 10 a.m. to 8 p.m. The checkout and reading rooms of VA are open from 8 a.m. to 8 p.m., thus the readers have

- good possibilities to use the service of the library. Majority of the programme's students take advantage of LIC VA funds. In VA division, readers get service at the checkout, general and science reading rooms containing 71 workplaces (20 computerised); wireless internet is installed.
- 88. Funds of the University LIC contain 227 thousand titles and 819 thousand units of printed documents. Electronic printed publications (29175 titles) and electronic books (206 101 titles) are ordered. The funds in VA subdivision contain printed documents of more than 28 thousand titles and 125 thousand units.
- 89. In 2015, the library subscribed to 53databases, providing access to el. full text journals of 29175 titles and 206 101 el. books. The majority of subscribed databases were financed by Eu SF project eMoDB.LT: Opening of electronic databases for Lithuania.
- 90. University subscribes to 14 databases<sup>18</sup>. Not a few data bases even in medical field are suitable for students of animal husbandry and veterinary fields students, however the databases, more suitable for students of agricultural studies are to be distinquished: CABI, CambridgeJournals Online, Ebrary, RefWorks, InCites, ScienceDirect, EBSCO Pullishing, eBooksonEBSCOhost, Springer Links, Taylor&Francis, Wiley Online Library ir kt., and others of biomedical field SAGE Journals; OvideBooks; JoVE; Henry StewartTalks.
- 91. Books and copies of scientific articles (in case they are not available at the University library) can be borrowed from Lithuanian National library, Lithuanian Technical Library and other libraries through the interlibrary loan directory (TBA).
- 92. The library is consistently enriched with new publications. In 2015, BIC VA division acquired new scientific publications of 888 titles (5713 units). The number of publications acquired by VA subdivision comprises 262 titles (1189 items) majority of them are publications and textbooks of veterinary and agricultural area. All the mentioned publications are available for the teachers and students directly through databases or using integrated virtual library (LUHS virtual library<sup>19</sup>; Lithuanian virtual library<sup>20</sup>).
- 93. All databases are available for community members on the University computers (library, computer classrooms, dormitories, teachers' rooms, and elsewhere). To use subscribed databases, not at the University premises, teachers and researchers can get connected via the University VPN (Virtual Private Network) or EZproxy.
- 94. Faculties, interior structural resources, teachers of subjects, and LIC department of publications' compiling and preserving cooperate ordering literature for research and studies. Information and advice concerning information search and resources are available on LIC website. The academic community of LUHS has possibility to order books for study and research. The fund of library and information centre is compiled considering the books needed for research and study. Electronic application form for ordering books is created.
- 95. Information and advice concerning information search and resources are available on LIC website; there is also information regarding services provided by the library, final work uploading online, order for use of plagiarism checker, teaching material, databases, etc. Library users have a possibility to use electronic catalogue, to book publications, to extend the loan period of the book, to use service of electronic readers' information. Short period courses for LUHS students and employees are arranged by staff of information centre. Annual seminars on information search for teachers and students are held in the library; courses for teachers, researchers, and students on information search and distribution are arranged consistently. Guidelines for final work's uploading (for authors) and the use of plagiarism checker (for advisors), training films are accessible.
- 96. The information about received publications and documents is available periodically: book fairs are arranged; lists of new books and their annotations are sent to the whole community by LUHS forum; the information is on a library website. All methodical material is consistently on display in the stand of LIC VA division.

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<sup>&</sup>lt;sup>18</sup> http://lsmuni.lt/lt/biblioteka/informacijos-istekliai/prenumeruojamos-duomenu-bazes/

<sup>&</sup>lt;sup>19</sup>http://www.lvb.lt/primo\_library/libweb/action/search.do?dscnt=1&dstmp=1386274425301&prefLang=lt\_LT&vid=LSM U&fromLogin=true

<sup>&</sup>lt;sup>20</sup> www.lvb.lt

97. At LUHS LIC, students with special needs (hearing, mobility, vision and other impairments) can use equipment designated for their learning (adjustable tables, view magnifier (TOPAZ XL HD), sound equipment (BellmanAudio Domino Pro) software JAWS 14 for Windows – software, analysing information on the screen and transmitting it to speech synthesiser, which transforms text into sound. WinTalkerVoice 1.6 – software (speech synthesiser), transforming information on computer screen to user in voice in Lithuanian.

# **Summary**

98. The number of rooms (auditoriums, lecture halls, laboratories, offices is sufficient for implementation of Animal Science programme; departments/institutes and laboratories are sufficiently provided with the equipment required for ensuring study process of high quality. Library is provided with books, study and methodical aids, and databases required for the study. To strengthen material base it is intended to further encourage teachers to be more active in preparing and performing projects.

# STUDY PROCESS AND ITS ASSESSMENT

- 99. Students and listeners are admitted to the Animal husbandry technology master's study programme pursuant to the order approved by laws of Lithuanian Republic, and LUHS rules for students21' admission annually approved by the Senate. Persons having completed first cycle university study or acquired higher education in collegium and an additional study, considering their learning achievements, results of entrance examinations and meeting other criteria for students and listeners set by the Senate annually are eligible to participate in the competition for admission to the Animal Husbandry Technology second cycle study programme. The information on admission (study area, field, duration, and mission) to AHT full time study programme is accessible on LSMU website22.
- 100. After the amendment of LR government's provision No 1228, of 30 Sept. 2009 "On the approval of order description of Lithuanian state budget funds for the tuition fee to be covered of the places funded by the state, or return of the funds part to the state budget" from 6 May, 2015 master's students (funded by the state), will have to return the funds in case of voluntary interruption of their study.
- 101. The data on admittance to full-time and continuous study are in table 10. The highest number of students to the full-time study were admitted in 2012, whereas to the continuous in 2013yr. It should be noted, that from 2014 all state-funded quota dedicated for the programme are filled.

Table 10. Numbers of students admitted to AHT master's full-time and continuous studies

Study	2012	2013	2014	2015	2016
Full-time	11	2	6	7	7
Continuous	11	13	10	10	12
Total	22	15	16	17	19

102. Most frequently master's study is chosen by AHT bachelor's graduates. The highest and lowest scores between students of full-time and those of continuous differed insignificantly (Table 11).

<sup>&</sup>lt;sup>21</sup> http://www.lsmuni.lt/lt/stojantiesiems/priemimo-taisykles/

<sup>&</sup>lt;sup>22</sup> http://www.lsmuni.lt/lt/stojantiesiems/lsmu-studiju-programos

Table 11. The highest and lowest competitive scores of the enrolled to AHT master's full-time and continuous studies

Year	The highest competitive score		The lowest competitive score		
	Full-time study	Continuous study	Full-time study	Continuous study	
2012	9.22	9.25	6.87	8.12	
2013	7.45	8.78	6.44	7.08	
2014	9.11	8.71	6.18	5.88	
2015	9.03	8.88	7.43	7.10	
2016	9.06	8.88	6.46	6.26	

- 103. Organisation of the study process. Executing AHT master's study the study plans are composed and submitted to AHT faculty Council to be considered and then are approved by the Rector. The schedules are composed for the whole academic year, lunch periods are projected. Schedules are approved by LUHS Study Centre and placed on the University website. Lectures, practicals, laboratory works, seminars and other activities are distributed sequentially within semesters. Student's work load is distributed rationally per week and per semester. There are 2 or 3 lectures, practicals or laboratory works per day. Students have sufficient time for independent work. On average student's study time comprises 30 hours per week. All teaching facilities are on the campus of veterinary academy, adjacent to each other and form a students' town, which provides a possibility to construct rational study schedule. At present all subjects are completed by an examination or project. All study years are divided in semesters, at the end of which, students take examinations. Student's work time for every study subject are divided into contact hours and independent work hours. At the University, lectures comprise not more than 30% of contact work time.
- 104. University intranet is used for disseminating information to students, teachers and to provide students with study material.
- 105. The system for students' accomplishment monitoring comprises students' attendance, data on mediate and final achievements and their analysis. Every semester the dean makes a report at the meetings of faculty and rectorate. The main document for study achievements recording is achievements record sheet, other documents: SIS electronic record sheet and record book are juridical documents for study progress record.
- 106. The causes of the change in the number of students are various: some students leave study for health, maternity leave, child care stop their study for a year and later return to the same study year.
- 107. Students' participation in science, art, and applied science's activities. Students of AHT study programme take part in the SSS activity. The society unites more than 1000 LUHS students and young researchers performing investigation, seeking knowledge in the area of biomedical sciences. In 2014-2015 five new SSS groups were established one of them of Animal Husbandry Technology (established on 20 Oct. 2015). The aim of the group is to provide direction, conditions for easier, more qualitative performance of scientific work, to teach working in team, to define professional prospects and career more precisely. Considering members 'needs and intentions, seminars, meetings with scientists and specialists of animal husbandry are organised; students are visiting advanced farms, where their theoretical and practical skills (of a chosen science field) can be developed.
- 108. There is Culture Centre at the University, the aim of which is to organise cultural and art activity at the University; to intensify spiritual life, coordinate activity of amateur, art groups, clubs and other organisations, to educate a cultured society. The culture centre unites artistic groups of teachers and students. More than 250 students from various faculties of the University participate in the activity. Students can participate in the university amateur groups such as: folk dance group "Dzigunas", MA chorus "Neris" (the oldest and most famous of the university choirs) folk dance ensemble Ave Vita, in which more than 100 students take part. At the University, the activity of amateur groups is coordinated by Culture Centre. In March of 2016 the new facility Students' area was opened. It's a new space for leisure, communication, preparing for lectures, etc.
- 109. Students mobility. Students have opportunities to study and perform practice abroad. Students mobility is carried out through Erasmus+ exchange programme and the academic net Nordplus and NOVA-BOVA.

- 110. Students' consulting on career possibilities. Students are consistently consulted concerning career possibilities. The information is available on internet and Career Centre (CC) that organises additional voluntary practices for students seeking to form better conditions for formation of practical skills and to facilitate students' employment. The University also organises *Career days*, during which students can communicate with employers directly ask questions, share information, acquire useful information, establish contacts and so forth.
- 111. Social support. This type of support comprises a possible psychological support for students and is provided by a psychologist. Students, as all Lithuanian citizens, have the right to choose a medical institution and get free medical service. In case of necessity students can get an academic leave on the basis of illness.
- 112. Conditions for students' self-governing are provided (SA); students' needs for self-expression are satisfied. Modern sports complex serves for classes of elective subjects and for students' leisure activities.
- 113. The order for allotment of stipends and support for students is defined in documents approved by LUHS Senate. Students are eligible for social stipends that are administrated by state national foundation pursuant to the provision of Lithuanian government "On the approval of the description for social stipends allotment and administration to students of higher educational institutions (No 1801)<sup>23</sup>". Complying with the decision of LUHS commission of stipends, merit stipends can be allotted. The fund for these stipends consists of state budget assignations, from state budget funds for students' encouragement from finances allotted for study to cover study fee in the state funded study places and from study fees. Merit stipends are awarded to the best students (state funded and not funded by the state) for their best scores at admission or study results. Furthermore, the University awards single time grants in case of misfortune or especial cases.
- 114. Assessment of achievements. The assessment of AHT study programme students' achievements is directly associated with study results, and principles of achievements' assessment are determined in LUHS study regulation and detailed in the description of every study subject. The assessment of students' achievements is pursuant to the recommendations of the European Parliament and Council on the establishment of the European Qualifications Framework for lifelong learning24 (2008/c 111/01/EB, therefore, two main goals are sought to be achieved: to assess students' advancement; to assess final study outcomes (in the study programme named as anticipated outcomes). The assessment of students' achievements is directly associated with the study results. The principles of the achievements' assessment are determined in the LUHS study regulation approved by the University Senate (20 June, 2014, No 47-05; amended by LUHS Senate (23 Sept. 2016, No 78-08)
- 115. Assessment forms for study subject/module colloquium, defence of practicals, test, and course paper compose a cumulative score. After completing study of subject/module the assessment forms are: credit, examination, independent work (project). The form and content of the assessment is planned by the department, and department presents it to the students before the start of the study subject.
- 116. Requirements for master's thesis preparation are methodical guidelines, which are approved at the FAHT Council. Requirements for preparation, methodical recommendations and assessment order are presented in the regulation for preparation and defence of final works approved by FAHT Council on 9 Nov. 2016, protocol No 3(100).
- 117. The numbers of AHT master's study programme graduates' are presented in Table 12. The highest number of students (18) graduated in the year 2014.

<sup>&</sup>lt;sup>23</sup> https://www.e-tar.lt/portal/lt/legalAct/TAR.1D1C2FCC1DFA

<sup>&</sup>lt;sup>24</sup> https://ec.europa.eu/ploteus/sites/eac-eqf/files/broch lt.pdf

Table 12. The number of Animal Husbandry Technology graduates in 2012-2016

Graduation year	The number of graduates
2012	14
2013	14
2014	18
2015	9
2016	16

118. In the faculty, the employment results of the programme's graduates are under consistent investigation and analysis. The data are collected by means of (telephone) interviews following a structured questionnaire. The interview is carried out within 6, 12 and 36 months after graduation of the study programme (Table 13). The absolute majority of graduates were employed in Lithuania. The employment indices prove the need of the programme.

Table 13. Percentge of AHT study programme graduates working by the work contract 2012-2016

Graduation year	Percentage of working graduates 6 mo after graduation	Percentage of working graduates 12 mo after graduation	Percentage of working graduates 36 mo after graduation.
2012	71.4 %	57.1 %	85.7 %
2013	85.7 %	92.9 %	
2014	66.7%	77.8 %	·
2015	77.8%		

119. The ways of assurance of study honesty are defined in the study regulation of LUHS, approved by the University Senate (20 June 2014, No 47-05, amended on 23 Sept. 2016, No 78-08. Dean forms the Commission to analyse cases of dishonesty, foreseen by the regulation. The commission consists of 1/3 University teachers (I should be from a different study implementing division than the work had been written at), representatives of faculty administration and 1/3 students delegated by students representatives. The commission not later than in 7 days (issue 325, regulation), and not later than within 4 days of its forming (issue 327, regulation) evaluate whether cases of dishonesty issues 325; 327) are present in the work and submit the conclusions to the dean of the faculty. After a case of academic dishonesty is confirmed, the faculty dean applies to the Rector with the request to consider the penalty. Students complaints regarding execution and quality of AHT programme in 5 previous years were not received.

#### **Summary**

120. Summarising it is possible to state that the requirements for the admittance to the study are relevant and the course of the study is smooth. Graduates get employed in the areas related to the objectives of the study Programme. The system of assessment by a cumulative score is used at the University that motivates students to study throughout the semester. Students are provided with appropriate academic and social support. They have conditions to take part in mobility programmes, however the participation is not sufficient. Student's involvement in national and international science projects performed by the teachers of the study programme. To intensify students' participation in the aforesaid activity, teachers should collaborate more closely with students individually, disclose in greater detail the advantages of international studies.

#### PROGRAMME MANAGEMENT

- 121. Responsibility for the study programmes' accomplishment, monitoring and taking decisions is distinctly distributed. General process of study organisation and quality assurance is vice-rector's responsibility. Activities of study quality assurance at the University level are coordinated by commission for study quality monitoring and assurance. Study Centre is responsible for organisation of study process and assurance of its appropriate implementation at the University level; at the faculty level dean of the faculty (vice-dean). Deans (vice-deans) of faculties are responsible for assurance of study quality. Systematic evaluation and updating of the programmes are under the responsibility of Study programme committee.
- 122. The order of preparation, improvement and administration of the Programme is regulated in provisions of national legislation (Law of Science and Education of the Republic of Lithuania, orders of the Minister for Education and Science "On the approval of the description of general requirements for master's<sup>25</sup> degree awarding study; "On the approval of the description of full-time and continuous study") and in the documents of the University (Statute of the University, in the plans of the University development, LUHS regulation, in LUHS provisions for study quality assurance<sup>26</sup>, in LUHS order of study programme's creation, improvement and management<sup>27</sup>, in faculty provisions<sup>28</sup>, in procedure documents prepared in accordance with the order determined and approved at the University (rules, regulations, descriptions of orders, etc.)<sup>29</sup>.
- 123. The dean and vice dean of the FAHT are responsible for implementation and quality of AHT study Programme. The FAHT dean is responsible for execution of orders and provisions approved by Senate and Rector of LUHS, organise and control study process in the faculty and submit proposals regarding the quality improvement of the study to AHT Council, Senate and Rector. The vice rector of the FAHT, together with the dean coordinates activities for Programme's quality assurance.
- 124. Departments, clinics and institutes of LUHS MA and VA take part in the accomplishment of AHT programme. Heads of divisions are responsible for study organisation and appoint teachers responsible for delivering study subjects. Responsible teachers compose descriptions of study subjects and upload them on LUHS SIS database, compose and publicise the plan of the study subjects teaching, coordinate the process of the study subjects discussing it with colleagues. The subject teachers are responsible for study quality and its supplementation with the newest scientific information.
- 125. The Programme's supervision is performed, and improvement coordinated by the Study Programme Committee approved by the Rector after Dean's proposal. The Committee is made up of teachers engaged in the Programme and performing scientific research, representatives of students and social partners. The composition of the Committee is being reviewed and changed, to ensure the members' competence for executing monitoring of the Programme and submitting recommendations for its improvement.
- 126. In 2012-2013/2016-2017 the Committee structure was changed (the number of Committee was increased from 9 up to 13 (from the year 2014). Due to the reorganisation of the Committee 18 Dec. 2014 (LUHS Rector's order No SC-1-1301, 2014) the composition of the Committee was updated (University teachers, representatives of students and social partners were changed). The composition of the Programme Committee is submitted in Annex 7. Since 2016 the possibility for every study year students to be represented in the meetings of the Study Programme Committee has been provided, it ensures representation of students' interests in all study years to express their opinion and recommendations for improvement of the programme.
- 127. The chairman of the programme's Committee evaluates its compliance with the requirements set by the Ministry of Education and Science and by the University; organises and monitors the revision course of the study programme descriptions; involves social partners to the analysis and evaluation of the study programme; carries out general coordination of the programme evaluation and

<sup>&</sup>lt;sup>25</sup> https://www.e-tar.lt/portal/en/legalAct/TAR.223429B8A4E8

<sup>&</sup>lt;sup>26</sup> http://lsmuni.lt/media/dynamic/files/281/studiju kokybes uztikrinimo lsmu nuostatos.pdf

<sup>&</sup>lt;sup>27</sup> http://lsmuni.lt/media/dynamic/files/994/1-6.pdf

<sup>&</sup>lt;sup>28</sup> http://www.lsmuni.lt/media/dynamic/files/8519/lsmu va gyvulininkystes technologijos fakulteto nuostatai.pdf

<sup>&</sup>lt;sup>29</sup> http://www.lsmuni.lt/lt/veikla/kokybes-uztikrinimas/studiju-kokybe-reglamentuojantys-dokumentai/

considering proposals for improvement of the study programme. The programme Committee organises revision of the programme outcomes, revision of the study subjects list required to form competences determined in the programme, revision of the study subjects' descriptions and detailed content. Scientists working in the programme Committee are responsible for the compliance of study knowledge and capabilities with the newest tendencies in science, their integration to appropriate study subjects of the programme. A representative of employers is responsible for analysis of the programme compliance with the changing employers' needs, analysis evaluation, required changes in students capabilities. Students representatives analyse, assess changes in expectations of the programme students, their integration to the programme.

- 128. Within the period of the report, 20 Committee meetings were held. The most frequent issues under discussion were discussion of plans for the programme Committee activity, publicising and popularising of the study programme, implementation of marketing plan and measures, accomplishment of thorough evaluation of the programme before the accreditation procedure.
- 129. The chairman of the committee organises members' activity and makes decisions collegially. Working together, communicating directly or virtually the Committee members analyse the outcomes of the programme's implementation, prepare projects for updating the programme, submit them for the Committee meeting to be discussed and adopted on the basis of voting (majority votes). On the basis of authorization for approval of provisions the proposals sanctioned by the Committee are submitted to:
- the Heads of divisions if the proposals are related to the study subjects updating, projecting methods for active teaching, or literature updating
- the dean of the faculty when the proposals are related to the improvement of the study process. The proposals are considered at the faculty Council that approves documents regulating study organisation
- the faculty Council when the proposals are related to the change of the scope of the programme study subjects or to the consistency in teaching.
- 130. Such distribution of responsibilities for the Programme's implementation, surveillance and decision taking is approved by the University Statute, faculty provisions and assurance descriptions of the study quality, detailing them.
- 131. Documents regulating internal management of study quality are consistently updated by the University Study Centre and accessible for programme teachers and members of the Committee on LUHS site under the title 'Quality assurance'<sup>30</sup>.
- 132. The Committee carries out evaluation of the programme annually, approving plans of the study programme. The study plans are considered and approved at the meetings of rectorate, FAHT Council, then approved by the Senate. The approved documents are available on LUHS website<sup>31</sup>.
- 133. The AHT study plans are implemented according to the study schedule prepared by LUHS Study Centre and approved by the head of the centre. The approved study plans are not to be changed except in the cases foreseen in the study regulation. The Study Centre projects the need for auditoriums and other facilities coordinate their engagement.
- 134. The heads of divisions are responsible for the accomplishment of the schedule in the division. They appoint teachers responsible for teaching the study subjects who, governed by the study regulation, compose the plan for the study subject, foresee periodicity of acquired knowledge control, requirements of the study subject, structures the study subjects' descriptions and uploads them on LUHS website of study information system and fills the register documents of students' achievements. The heads of divisions are also responsible for infrastructure of teaching base, its updating, distribution of pedagogic load and control of the study process; they analyse study quality at the initial level and submit data to the SPC and dean of the FAHT.
- 135. Objective and subjective (survey of stakeholders) data regarding the programme implementation are collected systematically. The SPC performing evaluation uses electronic information system of the University: bases of students' admissions, integrated with LAMABPO data base, data of the

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<sup>30</sup> http://www.lsmuni.lt/lt/veikla/kokybes-uztikrinimas/

<sup>31</sup> http://www.lsmuni.lt/lt/veikla/studijos/akademine-informacija/studiju-planai/studiju-planai-2016---2017-mm/

- FAHT dean's office, reports of the commissions for defence of final works, information system of career management, data of the commission for study monitoring and quality assurance.
- 136. Depending on the period of accreditation, every 6 or 3 yr a detailed evaluation of the programme is performed. At the moment of the current evaluation, methodics approved by SKVC is followed.
- 137. All the information on quality assessment is publicly announced: discussed with students, analysed at the meetings of divisions, faculty Council, meetings of academic community. The information concerning study quality and measures to improve it are thoroughly presented in annual reports of faculty Council, set on AIKOS database, in sites and publications oriented for the first year students.
- 138. The aim of the internal quality evaluation is quality of competences formed within the implementation of study programme; its mission is efficient feedback between academic community and students, graduates, stakeholders aiming at the improvement of formation of graduates capabilities. For that purpose experience of foreign universities is taken into account (University of Warmia and Mozury in Olsztyn, Poland; the Agricultural University of Athens, Greece; Hohenheim university, Germany; Kaposvá University, Hungary; SGGW Warsaw University of Life Sciences, Poland; University of Agriculture in Krakow, Poland; The University of Szeged, Hungary; Aegean university, Turkey). The University itself periodically assesses quality of its study programmes. After collecting and analysing information on popularity among applicants, results of surveys, graduates' employment, study achievements, the newest science tendencies related to study programme, also after analysis of teachers, students, stakeholders' proposals, the Study Committee caries out the evaluation of the study programme improvement and submits summarised proposals to be considered at the Council of faculties and approved by the Senate.
- 139. The University offers study based on scientific research: (a) students prepare final work of research character; (b) elements of the research are applied at the seminars, performing laboratory work, practicals, practice; (c) teachers use the research results in the study subjects. It is intended to pay more attention to the comments of employers and students and revising the study programme to associate study subjects with the practice (analysis of good practice examples, real cases/situations) and application of active methods in teaching.
- 140. Taking students' mobility under consideration, students' encouragement to participate in international exchange programmes was intensified. At the end of the year 2016 the university had 164 active Erasmus+ cooperation agreements in 27 European countries. The University Centre for study and international relations provides assistance to students and teachers seeking to take part in Erasmus+ and in other programmes of international mobility. Since 1996 the University has been a member of the Baltic Forestry, Veterinary and Agricultural University Network (BOVA), collaborating with the Nordic Forestry, Veterinary and Agricultural University Network (NOVA). It provides possibilities for LUHS students and teachers to participate (supported by Nordplus) in intensive courses of high quality in Latvia, Estonia, Denmark, Finland, Norway, Sweden, and Iceland. In 2014 and 2016 the courses were offered at LUHS VA, under the theme "Quality evaluation of eggs and poultry meat".
- 141. Recently, more attention is paid to the adaption of study subjects to be used on Moodle system. E-department of the University study Centre is responsible for development of Moodle system, periodically organises trainings for University teachers and offers individual and group consultations about the use of Moodle. In 2016 VU Centre for Electronic Study and Examination Organisation arranged distance training for the university teachers, the theme "Creation of methodics for E. learning and application possibilities of virtual learning environment".
- 142. Considering the programme means, other experts' recommendations were also taken into account (Annex 6).
- 143. To ensure the programme quality, evaluation and opinion of highly qualified teachers, motivated students, employers (possessing innovative approach to study process) are of considerable importance. To involve them to the evaluation and improvement of the programme preparation, the system of social partners' feedback is consistently developed at the University. Implementing the system surveys, discussions in target groups are arranged and the obtained generalised results are used for the updating of the study programme, improvement of the study process organisation, enhancement of academic staff composition and capabilities.

- 144. Assurance of student's feedback. Students take part at the activity of LUHS VA Students Representatives office. Students' representatives are members of LUHS Senate, FAHT Council, commissions for teachers' attestation and allocation of grants, programme Committee. Moreover, students may speak out their problems at the dean's office; they can also apply to the University Study Centre and at the joint meetings with members of study programmes' Committee and directly to the teachers during lectures. During the implementation period of the study programme, students' appellations regarding examinations or complaints were not submitted.
- 145. At the end of every semester students have the opportunity to speak out their opinion a) concerning all study subjects in the surveys via electronic system for recording study results (LUHS SIS). Summarized data of the surveys (2013-2014 yr) are presented in this system<sup>32</sup>. The survey is voluntary; the number of students engaged in the programme is not great, hence the number of filled questionnaires concerning study subjects is not significant. A survey was arranged after the practice of 2016 yr seeking to evaluate students' opinion b) about benefits and shortcomings of the professional practice activity. The Programme Committee arranges surveys of students after defending final work –c) the aim is to find out about fruition of students' expectations, their opinion about study organisation, teachers' academic and scientific competence during the whole study period. d) international department arranges surveys seeking to get information about exchange programmes' benefits, quality differences between LUHS and the universities where they had practice on the basis of partial study agreements.
- 146. Assurance of graduates' feedback. Since summer of 2015, University and some other schools of higher education have united into information system for career management (Karjera.lt), which permits to conduct graduates' career monitoring 6, 12, and 36 months after completion of the study. In this system, objective data (from state information systems, registry offices) concerning graduates employment, market situation, salaries are provided. The University Career Centre coordinates activities of graduates monitoring. According to the objective data of career management IS, from 9 graduates 60 per cent were working 6 months after graduation (graduated in 2015). The system does not provide data on the type of employment, therefore the graduates were interviewed on the telephone in April, 2016 the graduates were working in business area of agricultural infrastructure, Lithuanian Agricultural Advisory Service, Control of animal productivity.
- 147. Assurance of teachers' feedback. Teachers of AHT study programme can speak out their comments and proposals in the meetings of their divisions, Committee meetings of study programme and at the Council meetings of AHT faculty. Teachers get acquainted with the report and proposals of the chairman of Evaluation Commission for final works. In December of the year 2016, the survey of teachers was carried out. The structure improvements of the study programme will be performed on the basis of teachers' proposals and evaluations.
- 148. Assurance of employers feedback. Employers' representatives are involved in the activity of FAHT Council, Committee of study programmes, Commissions for evaluation of students' final works.

149. The system of study programmes and internal quality management is described and under the process of implementation. The responsibility for the management of the programme is explicitly distributed among the programme Committee, divisions, dean's office, Study Centre, Centre of International Relations and Study Centre, Career Centre, University Senate. The programme teachers, students, graduates, employers are involved in the processes of programme evaluation and improvement. To further improve management of the programme, the information acquired in the process of the programme management, expedition among teachers and students should be improved; the information accumulated in University information databases, publicity of the study programme, its relevance in the market should be used more efficiently. Teachers should be encouraged not to limit their activity within the quality improvement of their study subjects, but to be more active in the process of the study programme updating, to react to the feedback results. Practicians should be more actively involved into the teaching of certain subjects them.

<sup>&</sup>lt;sup>32</sup> http://www.lsmuni.lt/lt/veikla/kokybes-uztikrinimas/studiju-kokybes-vertinimas-ir-tobulinimas/